CT 11/82/01

NCI/ICRDB/CT11 82/01

PB82-938501

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/01

JANUARY, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
MAR 2 1982
U. S. GOVT. PUBS
DEPOSITORY 376

A LIMITED NUMBER OF THE COMPILATION OF EXPERIMENTAL CANCER THERAPY PROTOCOL SUMMARIES, 1981, ARE AVAILABLE. FOR A COMPLIMENTARY COPY, CONTACT ICRDB PROGRAM, WESTWOOD BLDG., RM. 10A18, BETHESDA, MD. 20205

In this issue:

- **ORAL CAVITY AND OROPHARYNX TUMORS** 1-4
- **PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS** 5
- **HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS** 6-7
- **THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS** 8-12
- **OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS** 13
- **BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS** 14
- **MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES** 15-17
- **PROGRESS IN RECONSTRUCTION AND REHABILITATION** 18
- **SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS** 19-21

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2.

ORAL CAVITY AND OROPHARYNX TUMORS

1. IMMUNOFLUORESCENCE OF ORAL SWABS- A NEW METHOD FOR EARLY RECOGNITION OF RECURRENCES OF TONSILLARY CARCINOMA?.

Mang WL, Hammer C
HNO-Universitatsklinik der Tum, Klinikum Rechts der Isar, Ismaninger Strasse 22, 8000 Munich 22, W. Germany

Laryngol Rhinol Otol (Stuttg); 60(7):385-386 1981

Immunofluorescent method for the early detection of recurrence of tonsillar carc inoma and its application in 54 patients are reported. Sera of patients with squamous-cell carcinoma of the tonsil contain antibodies of IgG type, which seem to be directed against individual-specific and group-specific tumor cell surface antigens. Such antibodies, which react with antigen on tumor cells from surgical specimens, also label presumably malignant cells from oral swabs. The immunofluorescent test, performed on 67 oral swabs from 54 patients, was positive in 7% of the patients in good condition, in 17% of those in poor condition, and in 88% of those with recurrence. The test result was uncertain in 17% of the patients in good condition, 59% of those in poor condition, and in 12% of the patients with recurrence. The test results were positive in 76% of the patients in good position, in 27% of those in poor condition, and in 0% of the patients with recurrence. Fluorescence was found in nine patients without clinical and histological evidence of recurrence 0.5-1.5 yr after the completion of therapy. Eight of these nine patients developed clinically and histologically confirmed recurrence within 1 yr, mostly within 3-6 mo, after the immunofluorescence test. The findings indicate the prognostic and diagnostic value of this simple non-invasive method in patients with tonsillar carcinoma. (9 Refs) (In GER)

2. IMMUNOGLOBULIN A DETERMINATION IN PATIENTS WITH ORAL AND LARYNGEAL MALIGNANT TUMORS.

Michalski H, Storch H, Brandl R, Fritsche T
Klinik und Ambulanz fur Ohren-Nasen-Halskrankheiten des Berichs Medizin, des Berichs Medizin Karl-Marx-Universtitat, Liebigstr. 18a, DDR-7010 Leipzig, E. Germany

Stomatol DDR; 31(6):413-419 1981

The IgA and IgG levels were determined in the serum, mixed saliva, and parotid saliva of 41 untreated patients with histologically confirmed malignant tumors of the oropharynx and of 10 healthy controls. The IgA level was found to be significantly increased (p less than 0.005) in the mixed saliva of the 41 tumor patients compared with the controls. The IgA level in the parotid saliva, determined in 13 cases, was also increased significantly (p less than 0.05). There was no significant difference in the serum IgA levels between the patients and controls. The IgA determinations were repeated after therapy in seven patients. The IgA levels in the serum and mixed saliva were reduced compared with the initial levels in five clinically tumor-free patients, while the serum IgA levels in the two patients with local recurrence showed no significant decrease and the IgA levels in the mixed saliva even increased in the two other patients with local recurrence. The findings indicate the important role played by IgA in the local immune system of the oropharynx. (12 Refs) (In GER)

3. IMMUNOPATHOLOGICAL FINDINGS IN PRECANCEROUS AND CARCINOMATOUS CONDITIONS OF THE ORAL MUCOSA.

Djawari D, Del Castillo-Carillo LF, Simon M, Hornstein OP
Dermatologische Universitatsklinik, Hartmannstr. 14, 8520 Erlangen, W. Germany

Dtsch Med Wochenschr; 106(40):1289-1293 1981

Clinical and immunological studies were undertaken on 12 patients (9 males, 3 females; aged 40-71 yr) with precancerous lesions (4 patients) or carcinoma (6) of the oral mucosa, or carcinoma of the larynx (1) or tonsils (1). Similar examinations were performed on a control group of 100 healthy immunologically normal persons. Tests included quantitative determination of serum Ig, mycological examination of the oral cavity, classification and in-vitro test of mitogenous stimulability of lymphocytes and granulocyte function. The following immunological parameters were found to be abnormal: decrease in T-lymphocytes (7 patients), markedly diminished PHA stimulability of lymphocytes (11), definite decrease in chemotaxis of granulocytes in autologous serum (6) and in homologous AB pooled serum (8), definite decrease in intracellular killing of Candida albicans blastospores by granulocytes (12). On the other hand, the ability of granulocytes to phagocytose active or heat-inactivated Candida albicans blastospores was decreased in only four and one patient, respectively. The number of B-lymphocytes in peripheral blood and Ig G, M and A in serum were within normal limits. The results indicate an alteration of the cellular immune system in patients with precancerous lesions and carcinoma of the oral mucosa. (Author abstract) (50 Refs) (In GER)

4. SECOND RESPIRATORY AND UPPER DIGESTIVE TRACT CANCERS AFTER ORAL CANCER.

Tepperman BS, Fitzpatrick PJ
Dept. Radiation Oncology, Princess Margaret Hosp., Ontario Cancer Inst., Univ. Toronto, Toronto, Canada

Lancet; 2(8246):547-549 1981

Between 1958 and 1975, 377 patients with squamous cell carcinoma of the floor of the mouth were treated. One hundred twenty-three new cancers (not recurrences) developed in 101 (27%) of these patients after treatment. Eighty-two (67%) were squamous cell carcinomas of the respiratory and upper digestive tracts, one-third of these being in the mouth. These tumors developed at a constant rate of 3.6% per yr and led to an excess mortality of 5.2% per yr. Men with oral cancer have a relative risk of 13.4 for new tumors in the upper respiratory and upper digestive tracts compared with the general population; in females the relative risk for all sites is 82.6. All patients with mouth cancer should thus be examined regularly because of this high risk of new cancers. (Author abstract) (19 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

5. NASOPHARYNGEAL CANCER: STUDY II.

Huang SC, Chu GL
Dept. Radiology, Coll. Medicine, Natl. Taiwan Univ., Taipei, Taiwan

Int J Radiat Oncol Biol Phys; 7(6):713-716 1981

Survival rates, recurrence rates, and frequency of radiotherapy complications in 1,032 nasopharyngeal cancer patients treated during 1974-1978 with cobalt-60 given in different schedules (study II) were compared with those obtained for 1,605 patients treated with a uniform schedule during the period 1958-1973 (study I). The study II patients received (1) continuous fractionated exposure (total dose 7,000 rad) in 7-8 wk, (2) split-course radiotherapy (same total dose) with a 10-day interruption in the middle of treatment, or (3) split-course radiotherapy and adjuvant chemotherapy (initially bleomycin, cyclophosphamide beginning in 1978). Actuarial 5-yr survival in study II was 56.0%, compared with 43.5% in study I. The percentage of patients with recurrence of the primary lesion declined from 15.7% in study I to 10.2% in study II. Complications as a whole were similar in the two studies, but the frequency of radiation myelitis was markedly reduced in study II by careful dose planning. Although the follow-up period has been too short to evaluate the individual treatment modalities, fewer cases of incomplete treatment were seen with the split-course schedule. (9 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

6. SURGICAL REPAIR IN HYPOPHARYNGEAL AND CERVICAL ESOPHAGEAL CANCER. ANALYSIS OF 162 PATIENTS.

Harrison DF
Inst. Laryngology and Otology, Gray's Inn Road, London, WC1X 8EE, England
Ann Otol Rhinol Laryngol; 90(4,part1):372-375 1981

Most recent publications dealing with surgical repair following pharyngolarynectomy or pharyngolaryngoesophagectomy appear to be based upon limited surgical experience of the most differing operations now available. An up to date review of 162 patients, including 68 gastric 'pull up' procedures, has the advantage of being a personal series as well as a critical evaluation of each technique based upon personal evaluation. (Author abstract) (10 Refs)

7. EFFECT OF TOTAL LARYNGECTOMY ON ESOPHAGEAL MOTILITY.

Hanks JB, Christian KC, Fisher SR, Postlethwait RW, Meyers WC, Jones RS
(c/o Fisher) Dept. Otolaryngology, Head and Neck Surgery, Duke Univ. Meical Center, Box 3805, Durham, NC, 27710
Ann Otol Rhinol Laryngol; 90(4,part1):331-334 1981

Total laryngectomy for cancer can result in dysphagia and altered esophageal motility. Manometric changes in the upper esophageal sphincter (UES), and in proximal and distal esophageal function have been reported. However, most studies have failed to take into account radiation therapy and appropriate controls. We selected ten male patients (54.3 +-1.9 yr) for longitudinal manometric evaluation prior to laryngectomy then at 2 wk and again 6 mo later. No patient received preoperative radiation therapy, had a previous history of esophageal surgery, or developed a postoperative wound infection or fistula. Seven of 10 patients had positive nodes and received 6,000-6,600 rads postoperative radiation therapy. Preoperatively 4 of 10 patients complained of dysphagia which did not significantly change following surgery and radiation. Two of three patients who did not complain of dysphagia preoperatively and received radiation postoperatively developed dysphagia. No patient without dysphagia preoperatively who recieved no radiation therapy developed symptoms. Our studies show that laryngectomy causes alterations in the UES resting and peak pressures but not in the proximal or distal esophagus, or the lower esophageal sphincter. These data also imply radiation therapy may be associated with progressive alterations in motility and symptomatology. Further study regarding the effects of radiation on esophageal motility and function are urged. (Author abstract) (8 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

8. ULTRASTRUCTURE OF ADENOID-CYSTIC CARCINOMA AS A SIGN OF MALIGNITY: (COMPARISON OF ULTRAMICROSCOPICAL INVESTIGATIONS CONCERNING ADENOID-CYSTIC CARCINOMA AND ADENO-CARCINOMA OF SALIVARY GLANDS).

Bienengraber V
Strempelstrasse 13, 2500 Rostock, E. Germany
Arch Geschwulstforsch; 51(3):262-272 1981

The ultrastructure of adenoid-cystic carcinoma of the salivary glands in seven cases was compared with the ultrastructure of adenocarcinoma of the parotid gland in two cases. Adenoid-cystic carcinoma was characterized by three cell types: (1) secretory cancer cells associated with clear areas characteristic of the tumors; (2) secretory cistern-rich cancer cells; and (3) secretory mitochondria-rich tumor cells. All three cell types exhibit defective secretory mechanisms with faulty control of synthesis of secretory products and precursors, as well as disturbed Golgi apparatus function. The nuclei contain a heterochromatin component distributed near the nuclear membrane. Adenoma was characterized by the same three cell types, plus a fourth type resembling intercalary cells. The defective secretory processes in both tumor types were the result of faulty cell differentiation and a lack of innervation of tumor cells. The variety of tumor cell types was apparently the result of the broad cytogenetic potential of acinar and ductular epithelium of the salivary glands. The similarities between adenoid-cystic carcinoma and adenocarcinoma support the classification of the former as malignant. Ultramicroscopy was indicated as a useful tool for prognostic and therapeutic considerations. (25 Refs) (In GER)

9. THE NEEDLE BIOPSY DIAGNOSIS OF PAPILLARY THYROID CARCINOMA.

Miller JM, Hamburger JI, Kini SR
Div. Endocrinology, Henry Ford Hosp., 2799 W. Grand Blvd., Detroit, MI, 48202
Cancer; 48(4):989-993 1981

One hundred five cases of papillary thyroid carcinoma (PTC) were studied by needle biopsy and surgically confirmed in a 30-mo period. Eight yr were required to diagnose the same number of cases without the use of needle biopsies. Identification of clinically unsuspected cancer and confirmation of clinically 'possible' cancer diagnoses accounted for 30% of this change. Seventy percent was accounted for by the increase in nodules referred for evaluation. The accuracy of fine-needle biopsy (FNB) improved with experience. Positive diagnoses of PTC were made in 19 of the first 35 PTCs and in 33 of the last 35. False-negative and unsatisfactory FNBs decreased from seven in the first third of the study to zero in the last third.

Large-needle biopsy (LNB), initially used to check FNB, became less necessary as experience increased. Both FNB and LNB were more specific when papillary areas were included in the biopsy procedure, and approached the specificity of surgical biopsy. The increase in identifying PTC may require modification of the therapeutic implications of this diagnosis. (Author abstract) (7 Refs)

10. SERUM THYROGLOBULIN IN THYROID CANCER.

Black EG, Gimlette TM, Maisey MN, Cassoni A, Harmer CL, Oates GD, Hoffenberg R
(c/o Hoffenberg) Dept. Medicine, Univ. Birmingham, Queen Elizabeth Hosp., Edgbaston, Birmingham B15 2TH, England
Lancet; 2(8244):443-445 1981

Serum thyroglobulin (Tg) was measured in 274 patients with differentiated thyroid cancer; 266 had previous thyroidectomy, which had been followed by ablative iodine-131 in 183 cases. Neither the presence nor the titer of anti-Tg antibodies appeared to effect Tg assays. Serum Tg reflected the presence or absence of cancer in 83% of 164 patients not receiving thyroxine (T4). This concordance improved to 97.5% in 158 patients tested while receiving T4. Thirty four patients in remission were tested both on and off T4 therapy; in all these patients the Tg level when receiving T4 was less than 5 ug/l. In 19 of 21 patients with cancer T4 treatment did not suppress Tg. Serum Tg thus provides an excellent marker for the presence or absence of thyroid cancer in patients taking T4, even if anti-Tg antibodies are present. It is proposed that monitoring of patients by assay of serum Tg should supplant routine assessment by radioactive-iodine scans of the neck or whole body. (Author abstract) (14 Refs)

11. UNEXPECTED PARATHYROID DISEASE DISCOVERED AT THYROIDECTOMY IN IRRADIATED PATIENTS.

Prinz RA, Paloyan E, Lawrence AM, Barbato AL, Braithwaite SS, Brooks MH
Dept. Surgery, Loyola Univ. Stritch Sch. Medicine, 2160 South First Ave., Maywood, IL, 60153
Am J Surg; 142(3):355-357 1981

Eight of 23 patients undergoing total thyroidectomy for radiation-associated nodular thyroid disease were found to have unsuspected parathyroid hyperplasia or adenoma at operation. The total serum calcium level was normal preoperatively in each patient. Serum ionized calcium and parathyroid hormone levels were measured in five patients preoperatively and were normal in each case. These pathologic findings in normocalcemic patients may represent a preclinical form of hyperparathyroidism, which would be further evidence linking radiation to the pathogenesis of hyperparathyroidism. The parathyroid glands should be evaluated both preoperatively and at operation in all patients who have a history of radiation and require thyroidectomy. (Author abstract) (25 Refs)

12. CURRENT STATUS OF CHEMOTHERAPY IN THE TREATMENT OF ADVANCED CARCINOMA OF THE THYROID GLAND.

Poster DS, Bruno S, Penta J, Pina K, Catane R
Cancer Therapy Evaluation Program, NCI, Bethesda, MD, 20205
Cancer Clin Trials; 4(3):301-307 1981

An extensive review of the literature was undertaken to identify single agents and chemotherapeutic combinations active against advanced thyroid carcinoma. The two most intensively studied agents were adriamycin and bleomycin, both of which appear to have definite activity against advanced disease. Studies of 25 other single agents and 17 drug combinations were also reviewed but most of the studies suffered from extremely poor patient accrual, thus precluding statistical analysis. Two cooperative group protocols are in progress which will hopefully accrue enough patients for meaningful interpretation. Physicians treating advanced thyroid carcinoma patients are urged to participate in these studies. (Author abstract) (61 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

13. SYMPOSIUM ON LOW FREQUENCY HARMONIC ACCELERATION, THE ROTARY CHAIR. RESPONSES TO LOW-FREQUENCY HARMONIC ACCELERATION IN PATIENTS WITH ACOUSTIC NEUROMAS.

Olson JE, Wolfe JW, Engelken EJ

Wilford Hall USAF Medical Center/SGHSO, Lackland AFB, TX, 78236

Laryngoscope; 91(8):1270-1277 1981

There has been increased interest in harmonic acceleration (HA) for the evaluation of vestibular pathology in recent yr. The purpose of this study was to determine the value of harmonic acceleration testing in 24 patients with surgically proven acoustic neuromas. All patients were tested preoperatively and postoperatively, and none were lost to follow-up. Thirteen were tested 1 yr or more after surgery. For rotational evaluation, each patient was seated in an enclosed chair driven by a DC torque motor turntable system and rotated utilizing five low frequency sinusoids (0.01-0.16 Hz). Slow eye movements in response to acceleration were analyzed by analog and digital computer techniques. Output measures were the phase relationships between the input stimulus velocity and the slow phase eye movement velocity and labyrinthine preponderance (LP) or asymmetry. Preoperative results showed that caloric examination identified 79% of patients with tumors and HA 67% (2 standard deviation criteria). When both tests were evaluated together they identified 91% of all patients with tumors. Of the four small tumors (less than 2 cm), HA identified four and caloric examination two. All patients were tested approx 7 days postoperatively and had statistically significant shifts in their phase and LP measures. The shifts in phase were stable up to 3 yr after surgery; however, the LP returned toward normal values. These findings indicate that the vestibular system can compensate but not repair itself after the loss of one labyrinth. In those patients who continued to be symptomatic 1 yr or more after surgery, the LP did not return to normal values. Harmonic acceleration testing complemented caloric testing in the identification of patients with tumors and objectively demonstrated patients with continued symptomatology after surgery. (Author abstract) (7 Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

14. CARCINOMA OF THE MAXILLARY ANTRUM: SURGERY OR RADIATION THERAPY.

Amendola BE, Eisert D, Hazra TA, King ER
Dept. Radiology, Radiation Therapy Div., University Hosp., Ann Arbor, MI, 48109
Int J Radiat Oncol Biol Phys; 7(6):743-746 1981

Results of surgery and radiation therapy were compared in a retrospective study of 39 patients (29 male and 10 female, age 32-81 yr) treated for squamous cell epithelioma of the maxillary antrum during the period 1968-1978. Nineteen patients received radical craniofacial surgery with orbital exenteration and reconstruction; 20 patients underwent the Caldwell-Luc biopsy and drainage procedure followed by megavoltage radiation therapy. A majority of patients presented with advanced disease (85% had Stage 4). Absolute 3-yr survival rates were 37% in surgical patients and 50% in radiotherapy patients. The difference was not statistically significant, but rate of local tumor control achieved by radiation (66%) was better than that achieved by surgery (45%). The 5-yr survival rates for surgical and radiotherapy groups were 31% and 35%, respectively. Quality of survival was considerably better in the the radiotherapy group; surgical patients required prolonged hospitalization not only for primary surgery but also for the facial reconstructive procedures. Radiotherapy may not be limited to an adjunctive role in patients with paranasal sinus tumors. (16 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

15. SARCOMATOID SQUAMOUS CELL CARCINOMA OF THE MUCOUS MEMBRANES OF THE HEAD AND NECK: A CLINICOPATHOLOGIC STUDY OF 20 CASES.

Leventon GS, Evans HL
(c/o Evans) Dept. Pathology, M. D. Anderson Hosp. and Tumor Inst., Houston, TX, 77030
Cancer; 48(4):994-1003 1981

Twenty cases of head and neck mucosal squamous cell carcinoma containing a prominent sarcomatoid element were reviewed with special attention to possible prognostic factors. Patients whose tumors invaded muscle, minor salivary or accessory respiratory glands, or bone had very poor survival rates, whereas those whose tumors were superficial and did not extend into any of these structures had excellent survival rates. A history of irradiation to the tumor site and tumor location in the oral cavity rather than the larynx, pharynx, nasal cavity, or nasal-associated structures were associated with invasiveness and thus with poorer survival. Aside from invasion, histologic features and gross configuration were not found to be of significant prognostic importance. (Author abstract) (19 Refs)

16. COMPARISON OF PREOPERATIVE AND POSTOPERATIVE RADIATION THERAPY FOR PATIENTS WITH CARCINOMA OF THE HEAD AND NECK.

Snow JB, Gelber RD, Kramer S, Davis LW, Marcial VA, Lowry LD
Dept. Otorhinolaryngology, Univ. Pennsylvania, 3400 Spence St. G1, Philadelphia, PA, 19074
Acta Otolaryngol (Stockh); 91(5/6):611-626 1981

Three hundred and fifty-four patients with squamous cell carcinoma of the oral cavity, oropharynx, supraglottic larynx, hypopharynx or maxillary sinus have been randomized for preoperative radiation therapy and surgery versus surgery and postoperative radiation therapy plus, in the case of patients with lesions of the oral cavity and oropharynx, radical radiation therapy. Data have been analyzed on 320 patients in this interim report. In the supraglottic larynx group local-regional control is significantly better for surgery and postoperative radiation therapy. The treatment differences in local-regional control in the oral cavity oropharynx and hypopharynx groups are not statistically significant. No statistically significant treatment differences exist for survival in all sites or in any site; continued follow-up is necessary to make definite treatment comparisons. (Author abstract) (5 Refs)

17. LOCAL MICROWAVE HYPERTHERMIA AND IRRADIATION IN CANCER THERAPY: PRELIMINARY OBSERVATIONS AND DIRECTIONS FOR FUTURE CLINICAL TRIALS.

Perez CA, Kopecky W, Rao DV, Baglan R, Mann J
Div. Radiation Oncology, Mallinckrodt Inst. Radiology, 4511 Forest Park Blvd., St. Louis, MO, 63108
Int J Radiat Oncol Biol Phys; 7(6):765-772 1981

A Phase I-II intramural (IM) study of irradiation and hyperthermia was conducted at the Mallinckrodt Institute of Radiology on 29 patients with recurrent or metastatic superficial tumors. The lesions were treated with 400 rad fractions given every 72 hr (2x/wk) for a total dose of 2,400-4,000 rad followed by hyperthermia (42-43 C, 90 min). Six additional lesions were treated according to the Radiation Therapy Oncology Group (RTOG) randomized protocol consisting of three doses of 500 rad followed by hyperthermia; 12 control lesions were treated with radiation alone (3 doses of 600, 700, or 800 rad). Of the lesions treated according to IM, ***9/12 recurrent epidermoid carcinomas of the head and neck,*** 4/5 metastatic melanoma nodules, 5/9 recurrent adenocarcinomas in the chest wall, and 3/3 sarcomas showed complete regression. Partial regressions were obtained in four tumors. Of the lesions treated by RTOG, two metastatic melanomas showed complete regression and three tumors exhibited partial regression. Nine of the 12 control lesions showed complete regression after irradiation alone and 3 tumors regressed 50% or more. Radiation doses and heat were well tolerated by normal tissues; of the 35 sites treated, 11% developed blisters, 20% erythema, 77% dry desquamation, and 8% moist desquamation. In contrast, 25% of 12 control patients treated with irradiation alone (2,100-2,400 rad in 3 fractions) developed moist desquamation. (26 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

18. TECHNICS OF RECONSTRUCTION OF THE LOWER EYELID.

Lemagne JM, Beyer CK
Service d'Ophtalmologie, Cliniques Universitaire St-Luc, UCL 10/ 19.52 avenue Hippocrate 10, 1200 Brussels, Belgium
J Fr Ophtalmol; 4(4):307-315 1981

Reconstruction of the lower eyelid is discussed in view of the superiority of surgical treatment in the management of basal cell carcinoma and their frequent occurrence on the lower eyelid. The procedure is described based on the dimensions of the coloboma to be repaired. Complications of this procedure and the treatment of these complications are described. (32 Refs) (In FRE)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

19. CARCINOMA OF THE ORAL CAVITY IN RELATION TO SMOKING, AHH-INDUCIBILITY AND ORAL HEALTH.

Andreasson L, Bjorlin G, Korsgaard R, Mattiasson I, Trell E
(c/o Trell) Dept. Preventive Medicine, Allmanna sjukhuset, S-214 01 Malmo, Sweden
Lakartidningen; 78(35):2953-2957 1981

Etiological factors, some clinical details, and methods and results of treatment of carcinoma of the oral cavity have been investigated and evaluated in a consecutive material of 20 cases seen at the departments of oto-rhinolaryngology and oral surgery, Malmo General Hospital, between the yr 1976-1979. Sixteen of the patients were male, 4 female. The av age was 64.7 yr. All men and two of the women were smokers. In the male patients, there was an overrepresentation of heavy alcohol consumers. The tumor localization involved the tongue in 11 of the cases. Thirteen of the tumors were advanced but resectable, while 2 were non-resectable. The aryl-hydrocarbonhydroxylase (AHH) inducibility was investigated in the material and there was a statistically significant (p less than 0.001) overrepresentation of cases with high AHH-inducibility and an underrepresentation of cases with low AHH-inducibility. It is concluded that smo king is an important exogenous factor associated with the development and course of oral cancer, and that high AHH inducibility may be a genetically determined, constitutional background to increased susceptibility for smoke-dependent carcinogenesis in the oral cavity. (Author abstract) (15 Refs) (In SWE)

20. CARCINOMA OF THE ORAL CAVITY IN RELATION TO ARYL HYDROCARBON HYDROXYLASE INDUCIBILITY, SMOKING AND DENTAL STATUS.

Trell E, Bjorlin G, Andreasson L, Korsgaard R, Mattiasson I
(c/o Bjorlin) Dept. Oral Surgery, Malmo General Hosp., S 21401 Malmo, Sweden
Int J Oral Surg; 10(2):93-99 1981

The smoking patterns in a consecutive series of 20 patients (16 men, 4 women; aged 34-80 yr) with oral cancer was analyzed at the same time that blood aryl hydrocarbon hydroxylase (AHH) inducibility distribution and dental status were assessed. Two of the female patients were nonsmokers, all of the others smoked. In a control population of 118 hospital workers, AHH inducibility was was 7.6%, 41.5% and 50.9% for high, intermediate and low values, respectively, with no relation to smoking habits or sex. The AHH levels were high in eight patients, intermediate in seven, and low in five. High AHH inducibility was more common and low AHH less common than in the controls. Dental status was good in 18 of the patients with well functioning prosthetics and/or well functioning prosthetics and good oral hygiene. It was concluded that smoking had a prominent role in the occurrence of cancer in the oral cavity, while dental status appeared to be of minor importance. (50 Refs)

21. FAMILIAL RETINOBLASTOMA AND CHROMOSOME 13 DELETION TRANSMITTED VIA AN INSERTIONAL TRANSLOCATION.

Strong LC, Riccardi VM, Ferrell RE, Sparkes RS
Dept. Medical Genetics, Univ. Texas System Cancer Center, Houston, TX, 77030
Science; 213(4515):1501-1503 1981

Surviving persons from a kindred in which retinoblastoma occurred over four generations, transmitted by eight unaffected individuals, underwent chromosomal analysis. The results revealed that the development of retinoblastoma was associated with a constitutional chromosome deletion del(13)(q13.1q14.5) and that the unaffected transmitting state was associated with a balanced insertional translocation. These findings indicate that predisposition to retinoblastoma may be attributed to the loss of specific genetic material and that a chromosomal mechanism may explain apparent lack of gene penetrance in certain families. The development of unilateral, and not bilateral, retinoblastoma suggests either that the chromosome deletion is different from the mutation of heritable retinoblastoma in general, or that the chromosome deletion lessens the probability of subsequent somatic carcinogenic events. (Author abstract) (19 Refs)

AUTHOR INDEX WITH CITATION NUMBERS

Amendola BE 14
Andreasson L 19
Andreasson L 20
Baglan R 17
Barbato AL 11
Beyer CK 18
Bienengraber V 8
Bjorlin G 19
Bjorlin G 20
Black EG 10
Braithwaite SS 11
Brandl R 2
Brooks MH 11
Bruno S 12
Cassoni A 10
Catane R 12
Christian KC 7
Chu GL 5
Davis LW 16
Del Castillo-Ca 3
Djawari D 3
Eisert D 14
Engelken EJ 13
Evans HL 15
Ferrell RE 21
Fisher SR 7
Fitzpatrick PJ 4
Fritsche T 2
Gelber RD 16
Gimlette TM 10
Hamburger JI 9
Hammer C 1
Hanks JB 7
Harmer CL 10
Harrison DF 6
Hazra TA 14
Hoffenberg R 10
Hornstein OP 3
Huang SC 5
Jones RS 7
King ER 14
Kini SR 9
Kopecky W 17
Korsgaard R 19
Korsgaard R 20
Kramer S 16
Lawrence AM 11
Lemagne JM 18
Leventon GS 15
Lowry LD 16
Maisey MN 10
Mang WL 1
Mann J 17
Marcial VA 16
Mattiasson I 19
Mattiasson I 20
Meyers WC 7
Michalski H 2
Miller JM 9
Oates GD 10
Olson JE 13
Paloyan E 11
Penta J 12
Perez CA 17
Pina K 12
Poster DS 12
Postlethwait RW 7
Prinz RA 11
Rao DV 17
Riccardi VM 21
Simon M 3
Snow JB 16
Sparkes RS 21
Storch H 2
Strong LC 21
Tepperman BS 4
Trell E 19
Trell E 20
Wolfe JW 13

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). CANCERGRAMS are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/02

NCI/ICRDB/CT11 82/02

PB82-938502

INTERNATIONAL CANCER RESEARCH DATA BANK

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/02

FEBRUARY, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
MAR 16 1982
U. S. GOVT. PUBS.
DEPOSITORY 276

VISIT THE ICRDB BOOTH DURING THE ASCO/AACR MEETINGS FOR COMPLEMENTARY SEARCHES OF CANCERLINE IN ADDITION TO SAMPLE COPIES OF ICRDB PUBLICATIONS.

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS 1-5
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS 6-8
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS 9
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS 10-11
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS 12-13
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS 14
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES 15-19
- PROGRESS IN RECONSTRUCTION AND REHABILITATION 20-21

ORAL CAVITY AND OROPHARYNX TUMORS

1. MUCO-EPIDERMOID CARCINOMA OF THE PALATE.

Smitheringale A, Noyek AM, Chapnik JS, Blair RL, Freeman JL
(c/o Noyek) Suite 207, 99 Avenue Rd., Toronto, Ontario M5R 2G5, Canada
J Otolaryngol; 10(4):261-266 1981

Muco-epidermoid carcinoma of the palate (MEC) is described, with presentation of five case histories. MEC accounts for 25% of malignancies of the minor salivary glands. Av age

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

of presentation is 58 yr. Tumors are classified histologically as low grade, well differentiated (LG) or high grade, poorly differentiated (HG). Male:female ratio is 1:2 for LG and 1:1 for HG. No second primary tumors of the head and neck have been reported for salivary gland tumors. An LG tumor usually develops as a smooth, asymptomatic lump on the soft or hard palate that may be present for approx 2 yr before diagnosis. An HG tumor develops as a rapidly growing, painful lesion, which is frequently ulcerated. Duration of symptoms before diagnosis is usually approx 6 mo. Bony invasion and nasal involvement sometimes occur. Nodal spread is uncommon and distant metastasis has not been reported. Treatment is by excision with adequate clear margins. Radiation may be used in unresectable or poor risk cases. (10 Refs)

2. EPIDERMOID CARCINOMA OF THE PALATE.

Evans JF, Shah JP
(c/o Shah), Memorial Sloan-Kettering Cancer Center, 425 East 67th St., New York, NY, 10021
Am J Surg; 142(4):451-455 1981

A retrospective review of a consecutive series of 293 patients with epidermoid carcinoma of the hard and soft palate is presented. A majority of the patients had primary tumors larger than 2 cm at the time of initial diagnosis. Surgery was the initial treatment employed in most patients. The stage of disease at the time of initial treatment had a distinct influence on prognosis: the 5 yr survival rates were 70% for Stage I, 45% for Stage II, 32% for Stage III, and 6% for Stage IV lesions. A significant number of patients developed a second primary lesion, and the cure rate for those patients decreased to 28%. Although surgery and radiotherapy are perhaps equally effective in the control of early-staged disease, it appears that a combination of surgery and postoperative radiotherapy for advanced disease is preferred. (Author abstract) (15 Refs)

3. ANALYSIS OF TIME-DOSE FACTORS IN SQUAMOUS CELL CARCINOMA OF THE ORAL TONGUE AND FLOOR OF MOUTH TREATED WITH RADIATION THERAPY ALONE.

Mendenhall WM, Van Cise WS, Bova FJ, Million RR
Div. Radiation Therapy, Hillis Miller Health Center, Box J-385, Gainesville, FL, 32610
Int J Radiat Oncol Biol Phys; 7(8):1005-1011 1981

The effect of external beam radiation, used to treat both the primary lesions (74 squamous cell carcinomas of the tongue and 73 squamous cell carcinomas of the floor of the mouth) and the neck, on local control was examined. Time-dose factors for combining external beam and interstitial radium that produce local control equivalent to radium alone were studied. For the 74 patients with tongue tumors, a significantly better rate of control was observed for T2 lesions treated with a greater proportion of radium. A time-dose relationship was noted in T2 and T3 lesions of the tongue. Local control increased with shorter treatment times over the range of doses administered for the T2 lesions. The local control rate increased with increasing dose and with decreasing overall treatment time in the T3 lesions. For both T2 and T3 patients, no apparent difference in local control was observed between split-course and continuous-course treatment within time-dose subgroups. No significant difference in local control was observed for T1 and T2 tumors of the floor of the mouth as a function of treatment schedule. There was an increased local control rate in the T3 lesions treated with radium plus more than 3,000 rad external beam as compared to external beam alone. A time-dose relationship was noted in the T3 lesions of the floor of the mouth. In T3 patients, dose appeared to be more important than time. Thirty-two of 33 patients with elective neck irradiation had no neck node recurrence versus 13/17 patients without neck irradiation. Treatment complications and patient survival are described. Whereas dose appears to be important in all of these groups, overall treatment time appears to influence local control of oral tongue lesions more than mouth lesions. (26 Refs)

4. TREATMENT OF MALIGNANT LYMPHOMAS OF THE OROPHARYNX.

Duhmke E, Schwarze EW
Radiologische Universitatsklinik, Arnold-Heller-Strasse 9, D-2300 Kiel, W. Germany
HNO; 29(9):302-307 1981

The natural history of malignant lymphomas of the oropharynx and their response to treatment are described by evaluating the courses of 41 patients, who after histological verification underwent radiotherapy in the Radiological Clinic of Kiel University between 1965 and 1979. The analysis of the malignant non-Hodgkin lymphomas according to the 'Kiel classification' reveals a clear predominance of the germinal center tumors and the high grade malignancies. The long-term results of treatment show a good prognosis for clinical stages I-II1 (2 adjacent lymph node or extranodal regions involved above the diaphragm, 'Ann Arbor'-classification modified by Musshoff) with a 85% probability of both survival and freedom of disease. For clinical stages II2-IV long-term actuarial survival and disease free survival were lowered to 51% and 23%. Whereas in 93% a complete tumor regression could be achieved by the primary treatment, one third of these patients developed a recurrence of the disease, mainly caused by incomplete therapy, such as missing the 'extended field' radiotherapy or a necessary chemotherapy because of old age, myelodepression or simply refusal of further treatment. According to the results of this study chemotherapy seems to be necessary from clinical stage II2 on (2 distant lymph node or extranodal regions or three or more regions located anywhere involved above the diaphragm). Finally a refined locoregional irradiation technique for malignant lymphomas of the oropharynx is described: fast electrons and cobalt rays in daily alteration for the posterior cervical lymph nodes. Last but not least, we present the unusual treatment schemes of the 'Kiel Lymphoma Study Group' for malignant non-Hodgkin-Lymphomas of different histologies and stages. (Author abstract) (9 Refs) (In GER)

5. EFFECT OF RETINOIDS ON PRECANCEROUS LESIONS OF ORAL MUCOSA.

Koch HF
Universitatsklinik fur Kiefer- und Plastische Gesichtschirurgie, Westdeutsche Kieferklinik, Moorenstrasse 5, D-4000 Dusseldorf, W. Germany
Retinoids: Advances in Basic Research and Therapy, Proceedings of the International Dermatology Symposium held in Berlin, W. Germany, 13-15 October, 1980. Orfanos CE, Braun-Falco O, Farber EM, Grupper C, Polano MK, and Schuppli R, ed. Berlin, Springer-Verlag, 527 pp., 1981.

The aromatic retinoid Ro 10-9359 (AR) was tested for treatment of leukoplakia in 45 patients (31 males, 17 females; av age 64 yr). Twelve patients were heavy smokers. Group 1 (21 patients) received 75 mg AR/day po for 6 wk. Group 2 (24 patients) received 50 mg AR/day po plus 0.1% AR paste applied locally. After 2 wk of therapy initial reactions in Group 1 were very good in 13, good in 6, and moderate in 2. In Group 2 results were very good in 11, good in 9, moderate in 3, and bad in 1. Results 24 mo after therapy included permanent or partial remission in 52.3% of Group 1 and 58.3% of Group 2. Side effects included dryness of the mucosa, skin itch, and desquamation of the epithelium. Group 2 showed a lower incidence of side effects than Group 1. Combined enteral and local treatment appears to produce the best overall results. (8 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

6. CARCINOMA OF THE NASOPHARYNX IN CHILDHOOD.

Baker SR, McClatchey KD
Dept. Otorhinolaryngology, Univ. Michigan, 1405 E. Ann St., Ann Arbor, MI, 48109
Otolaryngol Head Neck Surg; 89(4):555-559 1981

Cases of 10 patients with squamous cell carcinoma of the nasopharynx were reviewed. There were eight boys and two girls; aged 7-16 yr with an av age of 13.5. The most common complaints were cervical mass and hearing loss. Five patients demonstrated ear disease in the form of serous or suppurative otitis media. Eight patients had cervical metastases on initial evaluation. Cranial nerve impairment occurred which was related to V in four, VI in two and III in one. Roentgenographic changes consistent with bone erosion were noted in four patients. At the time of initial treatment, none of the patients had distant metastases, six demonstrated tumor extending beyond the nasopharynx with bone involvement or cranial nerve impairment, and two had tumors confined to the nasopharynx. Initially, cervical metastases were bilateral in three and unilateral in five patients. Nine tumors were lymphoepitheliomas, one was poorly differentiated squamous cell carcinoma. With one exception, the patients received 5,000 rads or more over a minimum time period of 4 wk. Three- and 5-yr survival was 5/10 and 4/9, respectively. Poor prognosis was related to bilateral cervical metastases or cranial nerve impairment from neoplasm. (15 Refs)

7. NEURAL TUMORS OF THE NASAL FOSSAE.

Claux J, Vincent P
Service O.R.L., C.H.U. Rangueil, 31054 Toulouse Cedex, France
J Fr Otorhinolaryngol; 30(7):433-436 1981

The development and diagnosis of 15 neural tumors of the nasal fossae are discussed. Some patients benefit from a combination of surgery and radiotherapy and have a good prognosis, and others with neural tumors accompanied by systemic malignant or sarcomatous hematologic disorders, show a less favorable prognosis. These tumors can be derived from three types of olfactory neuroblasts: superficial supportive cells, olfactory cells, and Schwann cells. The diagnosis of these tumors is easy when both supportive and olfactory cells can be identified. Diagnosis is more difficult when only olfactory neurocytes or embryonic tissues are involved. Rosette formation, immunofluorescent studies, and electron microscopy are considered as diagnostic technics. Clinical symptoms important for histological diagnosis include tumor site, presence of associated infection, adenopathy, isolated epistaxis, or nasal obstruction or infection, radioclinical extension, loss of the sense of smell, and signs of intracranial compression. The histological diagnosis of olfactory neuroepitheliomas, neurocytomas, and neuroblastomas is described. The differential diagnosis of these neural tumors and undifferentiated carcinomas, malignant lymphomas, and sarcomas is described. (34 Refs) (In FRE)

8. THE SUBLABIAL APPROACH FOR EXTENSIVE NASAL AND SINUS RESECTION.

Allen GW, Siegel GJ
150 East Huron St., Chicago, IL, 60611
Laryngoscope; 91(10):1635-1640 1981

Excellent exposure of the structures of the middle third of the face can be obtained without external skin incisions by combining the basic incisions of rhinoplasty with a wide sublabial incision. In this way the bony structures of the middle third of the face can be completely uncovered. The interior of the nose and sinuses can be exposed simultaneously in the same field, and the perpendicular process of the palatine bone can be removed to provide unusually good access to the nasopharynx. Compared to lateral rhinotomy it is quicker both to open and to close, exposure is better, blood loss is less and there is no visible scar. (Author abstract) (2 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

9. COMPUTED TOMOGRAPHY VS LARYNGOGRAPHY: A COMPARISON OF RELATIVE DIAGNOSTIC VALUE.

Friedman WH, Archer CR, Yeager VL, Katsantonis GP
Dept. Otolaryngology, St. Louis Univ. Hospitals, 1325 S. Grand Blvd., St. Louis, MO, 63104
Otolaryngol Head Neck Surg; 89(4):579-586 1981

The diagnostic accuracy of computed tomography (CT) and laryngography (LGY) in the supraglottic, glottic, and subglottic regions was evaluated in 25 patients with laryngeal cancer. The axial view of CT was superior to the sagittal and coronal views of LGY; diagnostic accuracy was enhanced by the axial view in 15/25 patients. The supraglottic views of CT were superior to the supraglottic display of LGY in 16/25 patients; LGY was misleading in 10/16 cases, while CT was not misleading in any case. CT was superior or added to the diagnosis in evaluating the glottis in 9/25 cases, the subglottic region in 25/25 cases, the paraglottic region in 13/25 cases, the pyriform fossa in 24/25 cases, thyroid cartilage invasion in one, and arytenoid invasion in 3/25 cases. Overall, CT was clinically beneficial over and above the diagnostic accuracy of the LGY in 17/25 patients. LGY provided more information than CT in only one patient. LGY provided misleading information and detracted from the clinical evaluation in 17/25 patients. CT did not detract from the clinical picture in any case and was inaccurate in only two patients. Laryngoscopy was superior to LGY and CT in evaluating the pyriform sinus, but was useful in changing the predicted course of therapy in only one case. CT is the radiologic adjunct of choice in the diagnosis of laryngeal cancer, and LGY is no longer used on a routine basis. (7 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

10. RADIATION THERAPY OF MALIGNANT PAROTID TUMOURS.

Tepmongkol P
Radiotherapy Div., Dept. Radiology, Siriraj Hosp., Mahidol Univ., Faculty Medicine, Bangkok 7, Thailand
J Med Assoc Thai; 64(4):174-179 1981

From 1962 to 1976, 59 patients with malignant parotid tumors were irradiated by either a 60Co teletherapy unit or 350 kilovolt deep x-ray unit with a tumor dose of 4,000-6,500 rads in 4-6 wk. There were 41 males and 18 females, the median age was 55 yr (range 17-79 yr), and the left side was involved in 39 patients. Thirty-two patients had local disease only, 25 had local disease with regional node metastases, and 2 had local disease with distant metastases. There were 14 adenocarcinomas, 12 malignant mixed tumors, 11 undifferentiated carcinomas, 11 epidermoid carcinomas, 7 mucoepidermoid carcinomas, 1 acinic cell tumor, and 3 unclassified tumors. Eleven patients had facial nerve palsies. Eleven patients developed distant metastases during the course of the disease. Radiation response was good in 25 patients and partial in 6; no response was seen in 3 cases. Of the 33 patients followed, 19 survived 1 yr; 15, 2 yr; 13, 3 yr; 5, 4 yr; and 3, 3 yr. The best response was in adenocarcinomas, undifferentiated carcinomas and muco-epidermoid carcinomas. (27 Refs)

11. IS AGGRESSIVE SURGICAL TREATMENT INDICATED FOR RECURRENT BENIGN MIXED TUMORS OF THE PAROTID GLAND?

Piorkowski RJ, Guillamondegui OM
(c/o Guillamondegui), Univ. Texas System Cancer Center, M. D. Anderson Hosp. and Tumor Inst., 6723 Bertner Drive, Houston, TX, 77030
Am J Surg; 142(4):434-438 1981

The surgical treatment for recurrent or incompletely excised benign mixed tumors of the parotid gland is analyzed. In this series no operative procedure proved superior to another. For each patient the type of surgical procedure used must be individually selected. For patients with tumors recently excised or biopsied, superficial parotidectomy with excision of the skin scar is the minimal recommended procedure. Radiation therapy is not used as a primary method of treatment. It is, however, recommended postoperatively for patients with very advanced recurrent tumor or inadequate surgical margins. (Author abstract) (4 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

12. IMMUNOLOGICAL EFFECTS OF PROTEIN-BOUND KLEBSIELLAR POLYSACCHARIDE (PSK) IN PATIENTS WITH RETINOBLASTOMA: CHANGES IN T-CELL AND B-CELL SUBPOPULATIONS OF THE LYMPHOCYTES.

Kojima T, Minoda K
Dept. Ophthalmology, Faculty Medicine, Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan
Nippon Ganka Gakkai Zasshi; 85(5):403-409 1981

The immunological effects of PSK in patients with retinoblastoma were studied. Eighteen patients with retinoblastoma were treated by po administration of PSK. T-cell and B-cell subpopulations of the lymphocytes were counted before and after the treatment. In the patients with bilateral retinoblastoma, the mean of the T-cell subpopulation was significantly (p less than 0.001) lower than that of the control. On the other hand, in the patients with unilateral retinoblastoma, the mean of the T-cell subpopulation was similar to that of the control. The mean of the T-cell subpopulation in the patients with bilateral retinoblastoma increased significantly (p less than 0.05) after the treatment with PSK. The significance of the findings is discussed. (32 Refs) (In JPN)

13. EXFOLIATIVE CYTOLOGY IN THE DIAGNOSIS OF CONJUNCTIVAL TUMOURS.

Lopez Cardozo P, Oosterhuis JA, De Wolff-Rouendaal D
Dept. Cytology, Leiden Univ. Medical Centre, Leiden, The Netherlands
Ophthalmologica; 182(3):157-164 1981

In a study of 19 patients with clinically benign conjunctival lesions and 10 patients with malignant or potentially malignant conjunctival lesions, cytology of conjunctival smears proved to be a valuable diagnostic tool in the differentiation between benign and malignant lesions. (Author abstract) (10 Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

14. ANGIOSARCOMA OF SKIN AND SOFT TISSUE: A STUDY OF FORTY-FOUR CASES.

Maddox JC, Evans HL
(c/o Evans) Dept. Pathology, M.D. Anderson Hosp. and Tumor Inst., Texas Medical Center, Houston, TX, 77030
Cancer; 48(8):1907-1921 1981

Forty-four cases of skin and soft tissue angiosarcoma seen at M.D. Anderson Hospital before 1976 were reviewed. The cases fell into six different clinical groups: scalp-face, 17 cases; postmastectomy, 14 cases; postradiation, 5 cases; leg with vascular stasis, 2 cases; breast, 2 cases; and miscellaneous, 4 cases. In all cases in the first four groups, the tumors involved primarily the dermis and subcutis and showed similar blends of vasoformative and solid histologic patterns. Two tumors in the miscellaneous group closely resembled those in the larger groups, but the other two in that group (both located in deeper soft tissue sites) and the two breast angiosarcomas had a somewhat different microscopic appearance. Survival was generally poor in all groups, owing to frequent local recurrence and early metastasis; median survival for the entire series was 20 mo. Findings of significantly favorable prognostic importance were tumor size less than 5 cm (in the scalp-face group) and a moderate or marked lymphoid infiltrate in and around the tumor. Less significant favorable factors were a distal location (in the postmastectomy group) and low degree of pleomorphism. Only nine patients had long-term, disease-free survival. (Author abstract) (33 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

15. RESULTS OF FAST NEUTRON TELETHERAPY FOR LOCALLY ADVANCED HEAD AND NECK TUMORS.

Battermann JJ, Breur K

Radiotherapy Dept., Antoni van Leeuwenhoek Hosp., Netherlands Cancer Inst., Plasmanlaan 121, 1066 CX Amsterdam, The Netherlands

Int J Radiat Oncol Biol Phys; 7(8):1045-1050 1981

Seventy patients with locally advanced tumors of the head and neck region were treated with fast neutron teletherapy. All patients were irradiated 5 x per wk. The minimal tumor dose varied between 18 Gray (Gy) Gyngamma (Gyngamma = neutron dose + gamma dose) and 24 Gyngamma. Of the 70 patients, only 52 were evaluable. The minimum follow-up from the start of treatment was 2 yr. In general, only patients with less than a 10% chance of 5 yr survival with conventional therapy were included in the study. Although most patients had T3 and T4 tumors, nine patients with T2 tumors were treated. Two of them had recurrent tumor after previous major surgery and died of tumor after 1.5 and 13 mo, respectively. Four patients were judged unfit for surgery and were locally controlled but died of intercurrent disease after 5, 9, 13, and 17 mo. Three patients had T2 tumors of the larynx combined with cervical adenopathy. They died after 8, 20, and 33 mo of metastases and intercurrent disease. In most of the 43 patients with T and T4 lesions, persisting control of the primary tumor was achieved with the exception of tumors in the anterior two-thirds of the tongue (9 failures out of 11 patients). Persisting tumor in cervical nodes was found in 7/25 patients. Control rate is discussed in terms of site. Complete tumor regression was observed in 9/11 patie nts with salivary tumors. Only one failure was observed among six patients with tumors at the base of the tongue. Except for some salivary gland tumors, the histology of the analyzed head and neck lesions was squamous cell carcinoma. No difference in prognosis or local cure was found with different histological grading of the tumor. Complications of this treatment are described. (23 Refs)

16. REGIONAL LYMPH NODE MANAGEMENT AND OUTCOME IN 100 PATIENTS WITH HEAD AND NECK MELANOMA.

Olson RM, Woods JE, Soule EH

(c/o Woods) Section Publications, Mayo Clinic, Rochester, MN, 55905

Am J Surg; 142(4):470-473 1981

One hundred patients with invasive melanoma of the head and neck were treated by one surgeon from 1970 to 1978. Lymph node dissections were performed in 77 patients for palpable adenopathy, local recurrence, or tumor thickness greater than 0.75 mm when measured by micrometry. No patient whose lesion was less than 1.0 mm thick had a local recurrence or died as a result of melanoma. Patients who underwent elective lymph node dissection with findings of up to two positive nodes had a 53 to 56% 5 yr survival rate, while those with three or more nodes had a poor prognosis (15% 5 yr survival rate). The patterns of recurrence showed that relapse after nodal dissection usually presented with systemic metastases. The data support a therapeutic scheme based on 2 to 5 cm wide excision alone for lesions less than 0.75 mm in thickness and elective nodal dissection for specific indications. (Author abstract) (16 Refs)

17. ROLE OF PAROTIDECTOMY FOR SKIN CANCER OF THE HEAD AND NECK.

Jackson GL, Ballantyne AJ

(c/o Ballantyne) Dept. Head and Neck Surgery, Univ. Texas System Cancer Center, M. D. Anderson Hosp. and Tumor Inst., 6723 Bertner Drive, Houston, TX, 77030

Am J Surg; 142(4):464-469 1981

Involvement of the parotid gland or periparotid nodes by direct excision from a skin cancer or metastasis from a present or previously treated skin cancer is an uncommon but potentially disastrous event. Aggressive surgery with sacrifice of necessary structures but preservation of the facial nerve and surrounding structures when feasible results in satisfactory local and regional control. The overall local or regional control rate was 70.9%. Isolated metastases to the parotid gland in patients with successfully treated nonbasal cell skin cancers are controlled locally or regionally in 84.2% of the 57 patients reviewed. The addition of radiotherapy should be considered in patients when warranted by the pathologic findings and clinical condition of the patient; however, it is not without complications. (Author abstract) (11 Refs)

18. IMMUNOLOGICAL REACTIVITY OF PATIENTS WITH MALIGNANT TUMORS OF THE HEAD AND NECK. PART 4. IMMUNOLOGICAL CHANGES ACCOMPANYING SURGERY AND RADIOTHERAPY.

Sakaguchi K, Okuda M, Tomiyama S

Dept. Otolaryngology, Nippon Medical Sch., Tokyo, Japan

Nippon Jibiinkoka Gakkai Kaiho; 84(2):129-138 1981

Humoral and cellular immunities were examined before and after curative surgery or 60Co radiotherapy in 95 patients with various malignant tumors of the head and neck. The tumors occurred in the nasal sinuses and cavity in 19 patients, tongue or oral cavity in 11, pharyngoesophageal region in 18, larynx in 20, thyroid in 12, and other regions in 15. The radiotherapy consisted of 200-rad fractions administered 5x/wk for a total of 4,000-6,000 rads. Parameters of humoral factors such as total serum protein, serum protein distribution, levels of immunoglobulins, carcinoembryonic antigen (CEA), serum complement (CH50), and parameters of cellular factors such as peripheral lymphocyte count, phytohemagglutinin (PHA) skin test, and lymphocyte blastogenic response to PHA were measured several days before surgery and radiotherapy and after sufficient postoperative and postirradiation recovery time. Despite apparent similarities in the process of tumor disappearance, changes in immunological parameters were observed with respect to the treatment modality. In the patients who were treated with surgery, humoral immunity (levels of serum alpha2-globulin, CH50, IgA, IgG, and CEA) was elevated, but cellular immunity showed no changes. On the other hand, in the patients treated with radiotherapy, humoral immunity was not changed, but cellular immunities were significantly depressed (ie decreased peripheral lymphocyte counts and blastogenic response to PHA). Recovery of pretreatment immunity was observed a few mo postoperatively in the surgical patients, but suppressed immunity in the radiotherapy patients was thought to persist for a more prolonged period. (22 Refs) (In JPN)

19. NEEDLE ASPIRATION CYTOLOGIC BIOPSY IN HEAD AND NECK MASSES.

Young JE, Archibald SD, Shier KJ
Dept. Surgery, St. Joseph's Hosp., 50 Charlton Ave. East, Hamilton, Ontario L8N 1Y4, Canada
Am J Surg; 142(4):484-489 1981

Over 500 fine (number 22) needle aspiration biopsies were done on head and neck lesions. The total accuracy for the series was 94.5%. The accuracy rates for thyroid, salivary and metastatic or benign lymph node lesions were similar; approx 95%. Only lymphomatous lesions gave a lower accuracy rate: 75%. This method of evaluating masses in the head and neck is simple, rapid, inexpensive, well-tolerated and harmless, and is very accurate when there is close cooperation between the clinician and the cytopathologist. (Author abstract) (30 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

20. RECONSTRUCTIVE SURGERY OF THE MEDIAL CANTHAL REGION.

Becker FF
777 37th St., Suite C-101, Vero Beach, FL, 32960
Ann Plast Surg; 7(4):259-268 1981

Reconstructive surgery after removal of tumors in the medial canthal region is described and illustrated. Important considerations for reconstruction on the nasal side are the depth of the defect and its size. Possible methods for reconstructing superficial lesions include secondary healing by scar tissue contraction, full thickness skin grafts, and local skin grafts. Scar tissue contraction is unsuitable if the defect is toward the upper or lower lid. The skin of the glabella matches in color and texture that of the nasal aspect of the medial canthus and is readily available for reconstruction of superficial and deeper excisions. The upper eyelid skin flap can be used for a superficial medial canthal defect and could be considered a vascularized skin graft. With more formidable defects following excision of skin, sc tissue, and underlying muscle, adjacent tissue transfer is imperative. The best choice of tissue is usually a thick glabellar flap for a smaller defect or a midline or oblique forehead flap for a larger one. Reconstructions on the eyelid side of the medial canthus can be divided into superficial and deep defects, the former best reconstructed with full-thickness skin grafts, the latter necessitating a major lid reconstruction. (12 Refs)

21. RECONSTRUCTION OF THE MANDIBLE: USE OF COMBINED HOMOLOGOUS MANDIBLE AND AUTOLOGOUS BONE.

deFries HO
Dept. Otolaryngology, Washington Hosp. Center, 110 Irving St. NW, Washington, DC, 20010
Otolaryngol Head Neck Surg; 89(4):694-697 1981

Experience with the combined mandibular homograft-autograft for mandibular reconstruction is reported. Homologous human mandibles were obtained from cadaver donors, cleansed, teeth were removed, and the medullary cavity was hollowed out. The bone was firmly implanted through an external submandibular incision with overlapping juncture at the stumps. The medullary cavity was then filled with macerated bone and bone marrow obtained from the ilium or, in latter cases of the series, from the ribs. Twenty-six patients were successfully followed. Of the 12 trauma patients, 10 grafts were successful. Of the 14 cancer patients, four were successful, including two without prior irradiation and two with prior irradiation. Ten cancer patients with prior irradiation failed. The max period of follow-up of successful grafts was 10 yr; only one patient had a failure of a graft after 1 yr of follow-up, all other failures occurred before 1 yr. (8 Refs)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—361-847/111

AUTHOR INDEX WITH CITATION NUMBERS

Allen GW 8
Archer CR 9
Archibald SD 19
Baker SR 6
Ballantyne AJ 17
Battermann JJ 15
Becker FF 20
Blair RL 1
Bova FJ 3
Breur K 15
Chapnik JS 1
Claux J 7
De Wolff-Rouend 13
DeFries HO 21
Duhmke E 4
Evans HL 14
Evans JF 2
Freeman JL 1
Friedman WH 9
Guiliamondegui 11
Jackson GL 17
Katsantonis GP 9
Koch HF 5
Kojima T 12
Lopez Cardozo P 13
Maddox JC 14
McClatchey KD 6
Mendenhall WM 3
Million RR 3
Minoda K 12
Noyek AM 1
Okuda M 18
Olson RM 16
Oosterhuis JA 13
Piorkowski RJ 11
Sakaguchi K 18
Schwarze EW 4
Shah JP 2
Shier KJ 19
Siegel GJ 8
Smitheringale A 1
Soule EH 16
Tepmongkol P 10
Tomiyama S 18
Van Cise WS 3
Vincent P 7
Woods JE 16
Yeager VL 9
Young JE 19

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

U.S.MAIL

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

T 11/82/03

NCI/ICRDB/CT11 82/03
PB82-938503

ICRDB
CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK
Diagnosis, Treatment

SERIES CT11 No. 82/03
MARCH, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
APR 12 1982
U. S. GOVT. PUBS.
DEPOSITORY 376

STAY UP TO DATE IN YOUR FIELD. AN AUTOMATIC SDI IN CANCERLIT CAN GIVE YOU A MONTHLY LIST OF NEW ABSTRACTS RETRIEVED BY A CUSTOMIZED SEARCH PROFILE. CONTACT YOUR LIBRARIAN OR THE ICRDB PROGRAM, WESTWOOD BLDG., RM. 10A18, BETHESDA, MD. 20205.

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS 1-4
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS 5-6
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS 7-9
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS 10-15
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS 16-19
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS 20-21
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES 22-27
- PROGRESS IN RECONSTRUCTION AND REHABILITATION 28-29
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS 30-31

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

ORAL CAVITY AND OROPHARYNX TUMORS

1. ADVANCED CARCINOMA OF THE TONGUE. MANAGEMENT BY TOTAL GLOSSECTOMY WITHOUT LARYNGECTOMY.

Effron MZ, Johnson JT, Myers EN, Curtin H, Beery Q, Sigler B
Dept. Otolaryngology, Univ. Pittsburgh Sch. Medicine, Eye and Ear Hosp., 230 Lothrop St., Pittsburgh, PA, 15213
Arch Otolaryngol; 107(11):694-697 1981

A major goal of any surgical program for patients with tumors is to cure their cancer. Patients requiring total glossectomy usually are seen initially with far advanced disease, often after failure of other treatment modalities. As a result, they may be suffering from constant pain as well as impairment of speech and deglutition. The prognosis is poor, and palliative surgery with good rehabilitation of the speaking and swallowing mechanisms becomes a reasonable, albeit limited, objective. Our series does not have sufficient follow-up to assess cure rates. However, our initial results have been encouraging. Our series does show that properly selected patients can be successfully rehabilitated after total glossectomy without laryngectomy. This successful rehabilitation begins with good patient selection and preoperative preparation. Postoperative rehabilitation requires the interplay of a highly motivated patient and a well-coordinated health care team. The physician, nurse, speech pathologist, dietitian, and social worker all have important roles in ensuring the patients's return to a good quality of life. The surgeon will direct the efforts of the team. To the nurse and the speech pathologist falls much of the bedside job of instructing and motivating the patient. Because such effective rehabilitation has been demonstrated by the success of our patients, we advocate preserving the larynx whenever possible in the patient who must undergo total glossectomy. (Author abstract) (8 Refs)

2. CLINICAL AND IMMUNOLOGICAL SIGNIFICANCE OF AUTOLOGOUS SERUM ANTITUMOR ANTIBODIES IN TONSILLAR CARCINOMA (MEETING ABSTRACT).

Mang W, Gruber F, Hammer C
Institute for Surgical Research, University of Munich, D-8000 Munchen 70, W. Germany
Eur Surg Res; 13(1):96 1981

Different dilutions of autologous and allogeneic sera were tested by means of indirect immunofluorescence (IF) for the presence of antibodies directed against the tonsillar carcinoma. Specificity of the antibodies was investigated on single cell suspensions of the tumor specimen and cytological swaps taken from the tumor site and the contralateral area every 2 mo after therapy. Detection of IF-positive tumor cells in swaps by the use of autologous antibodies seems to be a method that allows to recognize early recurrencies of tonsillar carcinoma. Though the function of these antibodies in tonsillar carcinoma is still unclear they seem to be of prognostic value providing useful tools to reduce further invasive diagnostic methods. (no Refs)

3. ORAL LICHEN PLANUS AND SQUAMOUS CELL CARCINOMA OF THE ORAL CAVITY (MEETING ABSTRACT).

Medina JE, Cipra D, Toth B, Goepfert H
No affiliation given
Otolaryngol Head Neck Surg; 89(5,section2):211 1981

A series of six patients, who had lichen planus of the oral mucosae and in whom a squamous cell carcinoma of the oral cavity developed is presented. The age of the patients in this series ranged from 39 to 78 yr. There were four women and two men. All patients had oral lichen planus. Squamous cell carcinoma(s) of the oral cavity developed. In two patients, multiple carcinomas developed. In total, 13 carcinomas were diagnosed and treated in these six patients during the period covered by this report. The location of the carcinomas, in order of frequency, was: buccal mucosa, faucial arch, gingival mucosa, tongue, other location. In eight instances the squamous cell carcinoma was well differentiated. In one patient four different verrucous carcinomas developed and in one was a carcinoma in situ. Cervical lymph node metastases developed in none of the patients. The premalignant potential of oral lichen planus has been debated for many yr, mainly in the oral surgery literature. Through a detailed analysis of the cases presented and a review of the literature, we wish to familiarize the otolaryngologist and the head and neck surgeon with the clinical and histopathologic characteristics of the different forms of oral lichen planus. The precancerous potential of this disease is emphasized, and the clinical forms, as well as other factors that may increase the risk of malignant transformation, are identified. It appears from our data that squamous cell carcinomas associated with oral lichen planus tend to be well differentiated and have little tendency to metastasize to cervical lymph nodes. (no Refs)

4. NEUROTOXIC RADIOSENSITIZERS AND HEAD AND NECK CANCER PATIENTS - HOW MANY WILL BENEFIT? (MEETING ABSTRACT).

Cummings BJ, Thomas GM, Rauth AM, Sorrenti V, Black B, Bush RS

The Princess Margaret Hospital, Toronto, Ontario, Canada

Conference on Chemical Modification: Radiation and Cytotoxic Drugs, September 17-20, 1981, Key Biscayne, Florida. Committee for Radiation Oncology Studies 139 pp., 1981.

A prospective study of all patients who presented with primary squamous cell carcinoma of the oral cavity or oropharynx was conducted to determine eligibility for a Phase I study of the nitroimidazole hypoxic cell sensitizer metronidazole (MTZ). The treatment schedule employed was daily dose oral MTZ with radical daily fractionated radiation therapy (RT) (5000 rad/20 fractions/4 wk). Twenty-six patients entered the study (Stage I 2, Stage II 10, Stage III 9, Stage IV 5) representing only 37% of the eligible patients and 16% of the total patients seen. However, the toxicity and pharmacokinetics of daily doses of 1.3, 1.6 and 2.0 g/m2 MTZ in this study were similar to those seen for a similar Phase I trial in patients with carcinoma of the cervix. The present results indicate that only a small fraction of the total patients with head and neck cancer may be eligible for a properly controlled study of neurotoxic radiosensitizers in which the absence of radiosensitizer is the only treatment variable. It is likely that toxicity and response data for these agents will be generated for highly selected patient subgroups. In order to assess the impact of radiation sensitizers on overall survival, it will be necessary to record also the outcome of treatment in the large patient group who are not eligible to receive such agents. (no Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

5. ADJUVANT MULTIPLE DRUG CHEMOTHERAPY FOR LOCALLY ADVANCED CARCINOMA OF THE NASOPHARYNX (MEETING ABSTRACT).

Moran ME, Goepfert H, Lindberg RD
No affiliation given
Otolaryngol Head Neck Surg; 89(5,section2):225 1981

In an attempt to improve the survival of patients with stage IV carcinoma of the nasopharynx, we have combined sequential multiple drug chemotherapy with conventional radiotherapy in the treatment of these patients. From January 1975 through December 1979, 12 patients with locally advanced squamous cell carcinoma of the nasopharynx have been treated at our institution with a combination of radiation therapy and chemotherapy. There were nine male patients; 10 patients were white. The median age was 47 yr. Radiotherapy was given in the conventional manner. All patients were treated with intermittent courses of chemotherapy, given at three- to four-wk intervals. The drugs used in seven patients were bleomycin, cyclophosphamide, methotrexate, and 5-fluorouracil (BCMF). Three patients received bleomycin, vincristine, and methotrexate (BVM). One patient was treated with vincristine, adriamycin, and cyclophosphamide (VAC), and the last patient received cyclophosphamide, vincristine, procarbazine, and prednisone (CVPP). Four patients received two courses of BCMF prior to conventional radiotherapy; after completion of the radiotherapy, monthly courses of BCMF were again given for a period of three to eight mo. The other eight patients received the chemotherapy beginning three to four wk after radiotherapy was completed. This was carried through for a period of 8 to 12 mo. All 12 patients have remained in remission with no evidence of recurrence from 10 to 68 mo after treatment was initiated, with a median follow-up of 16 mo. (no Refs)

6. PRESERVATION OF THE ORBITAL CONTENTS IN CANCE OF THE MAXILLARY SINUS (MEETING ABSTRACT).

Larson DL, Christ JE, Jesse RH
No affiliation given
Otolaryngol Head Neck Surg; 89(5,section2):172 1981

Whether or not to save the contents of the orbit, if not grossly involved with sinus cancer, has been argued by surgeons. Methods of reconstruction, compromise of oncologic principles, status of the remaining eye, and results when combined with radiation, have all bee points of question. In an effort to resolve this problem, a retrospective study was made of 43 patients with primary cancers of the maxill ary sinus, observed between Jan 1, 1973, and Dec 31, 1978. Most tumors were squamous cell carcinoma, although some were of salivary gland, bone, or nerve origin. Sixteen patients received orbital exenteration. The orbital contents were preserved in the remaining 27 patients, but the orbital floor was removed and the bed grafted in 14. The majority of patients had postoperative radiation therapy. This review suggests that there were oncologically sound indications for preservation of the orbital contents. Reconstruction of the orbital floor with a skin graft, even when combined with radiation therapy, gave a functional eye in the majority of cases. Of the 27 patients whose eyes were preserved, 12 had no complaints and satisfactory vision. The remainder had problems, which included diplopia, exposure keratitis, hypotropia, and ectropion. No patient requested removal of his eye. The results of a questionnaire to survivors regarding use of the eye will also be presented. (no Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

7. SIGNIFICANCE OF POSITIVE BRONCHIAL CYTOLOGY IN PRESENCE OF SQUAMOUS CELL CARCINOMA OF UPPER AERODIGESTIVE TRACT.

Johnson JT, Dekker A, Turner J, Myers EN

Dept. Otolanyngology, Eye and Ear Hosp. Pittsburgh, 230 Lothrop St., Pittsburgh, PA, 15213

Ann Otol Rhinol Laryngol; 90(5,part1):454-456 1981

The otolaryngologic literature reflects the high incidence of second primary neoplasms found in patients with a squamous cell carcinoma of the upper aerodigestive tract. Most commonly the second tumor is bronchogenic in origin. Routine panendoscopy (direct laryngoscopy, bronchoscopy, esophagoscopy) has been recommended in patients presenting with a squamous cell carcinoma primary in the upper aerodigestive tract. We have questioned the usefulness of obtaining bronchial washings during bronchoscopy in a patient who has an established primary in the upper aerodigestive tract. Perhaps false-positives would occur due to desquamation of tumor cells into the tracheobronchial tree. The authors address the incidence of false-positive washings encountered in a prospective evaluation of bronchial cytology encountered in 100 consecutive patients with primary squamous cell carcinoma of the upper aerodigestive tract who do not have primary bronchogenic carcinoma. A single-false-positive (1%) was encountered. It is concluded that epithelial carcinoma of the larynx and upper aerodigestive tract rarely shed identifiable tumor cells into the tracheobronchial tree. When malignant cells are found with bronchial washings, every effort should be made to localize a second primary tumor in the lung. (Author abstract) (13 Refs)

8. LARYNGEAL PSEUDOSARCOMA (MEETING ABSTRACT).

Leuszler RW, Shapshay SM, Strong M

No affiliation given

Otolaryngol Head Neck Surg; 89(5,section2):210 1981

Laryngeal pseudosarcoma is a rare malignancy. Histologically, an epidermoid carcinoma with a 'sarcomatous' spindle cell stroma is present. There is controversy existing over the origins of the 'sarcomatous' elements. They usually occur as polypoid masses attached to the vocal folds and carry a better prognosis than their sessile counterparts. Three patients with glottic, polypoid pseudosarcomas (one with a T1 and two with T2) were treated by endoscopic CO2 laser excision with one- to five-yr recurrence-free follow-up; although two have died of unrelated causes at one yr and two yr postoperatively. Electron microscopic examination shows possible lipocytic origin of the stroma in one case. With the literature supporting poor results from radiation alone, and low incidence of metastasis from glottic lesions, conservative surgical excision with close follow-up is recommended for polypoid, glottic pseudosarcomas. (no Refs)

9. SQUAMOUS CARCINOMA OF THE LARYNX IN PATIENTS UNDER THE AGE OF 35 YEARS (MEETING ABSTRACT).

Newman RK, Byers RM
No affiliation given
Otolaryngol Head Neck Surg; 89(5,section2):215 1981

Laryngeal carcinoma usually arises in men between the fifth and seventh decades. In general, epithelial malignancies other than these involving the skin are rare in the young adult. Those squamous carcinomas arising in the lip, tongue, and tonsil appear to have a poorer prognosis than their counterparts in the older adult. This study represents a review of the medical records of 33 patients under the age of 35 yr with squamous cell carcinoma of the larynx. The group consists of 18 males and 15 females with a mean age of 29, 20 (61%) of which gave a history of smoking at least one-half of a pack of cigarettes a day. Eighteen (54%) of the patients were staged T1 or Ts, 3 (1%) were staged T2, and 3 (1%) were T4. The majority of the lesions were of cordal origin. Twenty patients (7%) underwent radiation therapy for cure with survival of 90%. Six (2%) had surgery alone. None of this group died from disease. Six patients (2%) had combined surgery plus radiation therapy with 50% survival. The followup of the entire series was at least 20 mo with an overall survival of 81%. These results contrast to a five-yr survival of 79%, 45%, and 14% of the lip, tongue, and tonsil, respectively, in patients from a similar age group. It appears from this review that the biologic behavior of laryngeal squamous carcinoma in the young adult is similar to comparable-sized lesions in older patients. Also it appears that young patients with laryngeal squamous carcinoma appear to have, overall, a more favorable prognosis than those with this histopathology involving other head and neck mucosal sites. (no Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

10. A RETROSPECTIVE STUDY OF 65 CASES OF SALIVARY GLAND CYLINDROMAS.

Deboise A, Compere JF, Ledoux P, Bertrand JC, Guilbert F, Vaillant JM
Hopital de la Salpetriere, 47-83, boulevard de l'Hopital, F 75651 Paris, France
Rev Stomatol Chir Maxillofac; 82(5):286-288 1981

In a retrospective study of 65 cases of salivary gland cylindromas (SGC), tumor sites, and patient age and sex were not found to be of prognostic value. Pain was a prognostic element when it involved the buccal mucosa. The most important prognostic factors were the initial size of the tumor, invasiveness and cellular anomalies that were found in the tumor. In an histological study, the two most striking characteristics which were found were nuclear or mitotic anomalies and the histological invasion of neighboring structures. In 65% of the cases, the SGC were invasive. The treatment of choice was surgical excision followed by radiation therapy in a third of the cases. The incidence of recurrence was 50%, and most recurrent tumors reappeared before the fourth postoperative yr. Local recurrence was found to have prognostic value because of its correlation with metastases (8/11 cases of metastases had local recurrence). Wide surgical excision is the recommended treatment for SGC. (13 Refs) (In FRE)

11. THE DIAGNOSIS OF MUCOEPIDERMOID CARCINOMA OF SALIVARY GLANDS BY FINE NEEDLE ASPIRATION (MEETING ABSTRACT).

Lininger JR, Covell JL, Feldman S
University of Virginia Medical School, Charlottesville, VA
Twenty-ninth Annual Scientific Meeting of the American Society of Cytology, November 2-7, 1981, St. Louis, Missouri. The Society 90 pp., 1981.

Mucoepidermoid carcinoma of the salivary glands was first described by Stewart, et al in 1945. Since then the clinical and histologic features of this tumor have been well documented. Zajicek, et al reported their experience with fine needle aspirations (FNA) of salivary gland tumors (1969-1976). In their study of mucoepidermoid carcinoma, 24 lesions were aspirated with a false negative rate of 55% (1953-1962) and 7% (1963-1971). The purpose of this report is to present our cytologic findings with FNA of four mucoepidermoid carcinomas and compare these findings with FNA of 81 cases of epidermoid carcinoma metastatic to the neck. Three cases were high-grade mucoepidermoid carcinomas and one case was a low-grade mucoepidermoid carcinoma. Three cases were from the parotid and one case was from the submandibular gland. Three cases were diagnosed as mucoepidermoid carcinoma and had subsequent hitologic confirmation. The fourth case was diagnosed as epidermoid carcinoma by open biopsy of a neck mass. No primary was found and the mass was irradiated. The patient returned seven mo later with facial paralysis and an ill-defined post auricular mass. FNA of the salivary gland was diagnosed as metastatic epidermoid carcinoma. Subsequent surgical biopsy revealed a mucoepidermoid carcinoma. Review of the FNA showed previously unappreciated glandular type cells as well as squamous cells. This case illustrates the necessity of differentiating these tumors from metastatic epidermoid carcinomas in the neck. (no Refs)

12. MEMBRANEOUS AND INTRACYTOPLASMIC MARKERS IN SALIVARY GLAND TUMOURS (MEETING ABSTRACT).

Seifert G, Caselitz J, Loning T
Institute of Pathology, University of Hamburg, Hamburg, W. Germany
Eighth European Congress of Pathology, August 30-September 4, 1981, Helsinki, Finland. The Congress 92 pp., 1981.

In order to clarify the classification and histogenesis of the salivary gland tumors the material of the Salivary Glands Register were analyzed by immunocytochemistry. Antigens like the cytoskeleton filaments (keratin, actin, vimentin), carcinoembryonic antigen (CEA), alphafetoprotein as well as cytoplasmic substances like lactoferrin or lysozyme were observed in pleomorphic adenomas, carcinomas in pleomorphic adenomas, adenocarcinomas, adenoid cystic carcinomas, mucoepidermoid tumors and anaplastic carcinomas. The presence of filaments of the keratin type was found in pleomorphic adenomas as well as in several groups of carcinomas. CEA was related to the glandular differentiated parts of the parotid carcinomas. A similar observation was made for lactoferrin. Lysozyme or alpha-fetoprotein were negative. The distribution pattern of the various markers was analyzed with regard to the different structure and histogenesis of the tumors. A histogenetic interpretation of the various findings is undertaken. In order to evaluate the stromal reaction to the salivary gland tumors, different immunoglobulins are analyzed in the tissue surrounding the tumorous part. A correlation of the intensity of the defense mechanism with regard to the degree of differentiation of the tumor is undertaken. (no Refs)

13. FINE NEEDLE ASPIRATION CYTOLOGY OF MEDULLARY CARCINOMA OF THE THYROID GLAND (MEETING ABSTRACT).

Kini SR, Smith MJ, Miller JM
Department of Pathology, Henry Ford Hospital, Detroit, MI
Twenty-ninth Annual Scientific Meeting of the American Society of Cytology, November 2-7, 1981, St. Louis, Missouri. The Society 90 pp., 1981.

Medullary carcinomas, which arise from calcitonin-producing parafollicular cells, represent 5-10% of thyroidal carcinomas. Although medullary carcinomas occur sporadically, a genetic predisposition to the neoplasm exists in 10-15% of cases, which may also be associated with neoplasms in other endocrine glands, such as pheochromocytomas. Medullary carcinomas exhibit various histologic patterns which are reflected in the specimens obtained by fine needle aspiration (FNA); they also contain amyloid-producing stroma. Diagnosis by FNA is helpful in planning surgical therapy and in initiating the screening for pheochromocytoma and the measurement of serum calcitonin. We carried out 3,442 FNA's of the thyroid gland on 3,209 patients. Of the 242 patients with proven cancer of the thyroid, 12 had medullary carcinomas of which seven were correctly diagnosed by FNA. Of the other five, three were diagnosed as undifferentiated carcinoma, one as cellular adenoma, and the smears of the remaining case were acellular. Of the three cases incorrectly diagnosed by FNA as medullary carcinoma, one was a Hurthle cell carcinoma, one a papillary adenocarcinoma, and one a nodular goiter. To be able to diagnose medullary carcinoma by FNA it is necessary to be familiar with the various cytologic patterns of the neoplasm. We shall illustrate the cytologic features of medullary carcinoma and discuss the differential diagnosis. (no Refs)

14. THYROTOXICOSIS IN THYROID CANCER.

Kalinin AP, Pravdin VA, Bogatyrev OP, Mamedov AZ
M. F. Vladimirskii Res. Clinical Inst., Moscow Oblast', USSR
Klin Med (Mosk); 59(8):11-15 1981

Literature data on the incidence and pathogenesis of thyrotoxicosis in combination with thyroid neoplasms are reviewed. It was suggested that thyrotoxicosis develops simultaneously with cancer in the intact thyroid gland, develops simultaneously with cancer in the hyperplastic thyroid gland, or that malignant neoplasm develops in the thyroid with toxic goiter. The first two mechanisms of thyroid goiter are associated with hyperproduction of thyroid hormones by tumor cells, while the third mechanism is associated with increased amount of functional tumor cells in the blood. Prolonged administration of thyrostatic agents or radiotherapy in the patients with toxic goiter was shown to lead to cancer of the thyroid. Cancer of the thyroid is more frequent among women with diffuse toxic goiter. Thyroid neoplasms developing in diffuse toxic goiter frequently have histology of follicular or papillary carcinoma, while adenocarcinomas are more frequent in nodular or mixed goiter. Detection of thyroid carcinoma in the patients with diffuse toxic goiter indicates the immediate surgery. (no Refs) (In RUS)

15. PREGNANCY AFTER TOTAL THYROIDECTOMY AND 131I THERAPY FOR THYROID CANCER (MEETING ABSTRACT).

Pelizzo MR, Manfe AZ, Casara D, Girelli ME, Busnardo B
University of Padua, Padua, Italy
Eur J Nucl Med; 6:A24 1981

The fear of possible genetic damages usually suggests to avoid pregnancy in patients treated with 131I for thyroid cancer. In our series of more than 400 female patients, subjected to total thyroidectomy and 131I therapy for differentiated thyroid cancer, twelve pregnancies were observed. The age of the patients ranged between 18 and 30 yr; the tumor was papillary in 8 and follicular in 4 cases; neck lymph node metastases were detected in 3 patients, while the other patients were without any metastases. The total dose of 131I ranged from 80 and 360 mCi; the time interval between the last dose and conception was in every case longer than two yr. No patients showed evidence of metastases during pregnancy. They were receiving a suppressive dose of T3 and thyroid stimulating hormone response to thyrotropin releasing hormone was inhibited in all patients when tested before conception. The T3 dose was corrected during pregnancy according to body wt variations. No one showed appreciable side effects during pregnancy which could be referred to T3. Ten pregnancies were regularly carried through and resulted in easy delivery, the other two were both miscarriages of primiparae within the first three mo, no cases of prematurity, congenital anomalies, hypothyroidism or goiter were observed in the offspring. So far no other signs of genetic damages have been observed in the children, the oldest of whom is now 7 yr old. On the basis of these findings, we don't see strong reasons for forbidding pregnancy to patients treated with high doses of 131I, considering also the long life expectancy for young patients with well differentiated thyroid carcinoma. (no Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

16. ARGON LASER AND XENON ARE COAGULATION OF MALIGNANT CHOROIDAL MELANOMATA: HISTOLOGICAL FINDINGS IN SIX CASES.

Duvall J, Lucas DR
Dept. Opthalmology, Pathology, Univ. Manchester, Oxford Rd., Manchester M13 9PT, England
Br J Ophthalmol; 65(7):464-468 1981

Histological findings in six eyes with melanomata which had been treated by photocoagulation are reported. All cases had been treated with Argon laser, Xenon arc, or a combination of the two. Histological findings in 100 globes enucleated for malignant melanoma were also reviewed. The retina overlying the tumor was destroyed in all cases and Bruch's membrane was ruptured in 5 cases. The frequency of rupture of Bruch's membrane is greater in tumors treated by photocoagulation, as evidenced by the 100 untreated cases. Of these, 35 showed rupture of Bruch's membrane; of those only 4 were of low to intermediate malignancy. No difference was seen between cases treated with argon laser alone and those treated with a combination of argon laser alone and xenon arc. Three cases of mixed tumors ruptured Bruch's membrane and erupted into the vitreous, giving rise to reservation at the suggestion that cell type of the tumor is unimportant concerning the prognosis and effectiveness of photocoagulation. Lack of comment by previous author's on damage to Bruch's membrane appears to be due to treatment mainly by xenon arc; macular lesions are more likely to occur with argon laser. necrosis in superficial parts of the tumor in globes enucleated shortly after treatment may be a direct effect of photocoagulation. There is no evidence of significant occlusion of the choroidal vessels adjacent to the tumor in any case. These results suggest that treating tumors which do not conform to specific criteria by photocoagulation is questionable due to resulting adverse effects. (27 Refs)

17. HYPERTHERMIC TREATMENT OF RETINOBLASTOMA (MEETING ABSTRACT).

Lagendijk JJ, Schipper J

Department of Radiotherapy, University Hospital, Catharijnesingel 101, Utrecht, The Netherlands

Strahlentherapie; 157(9):620 1981

Retinoblastoma is a rare tumor arising at multiple sites in the retina of young children. The principal mode of treatment of this disease is irradiation of the entire retina. Unfortunately, there is a high rate (60%) of persisting tumor after irradiation, requiring additional therapy with light-or cryocoagulation. Hyperthermia might be a method to enhance the effectiveness of radiation on retinoblastoma. A microwave (2450 MHz) applicator for uniform heating of the entire retina and vitreous has been designed. The applicator has been tested on rabbit eyes (in vivo) and on eye phantoms. The measured temeperature distributions satisfied the requirements. It is possible with this applicator to heat the posterior or the anterior part of the eye uniformly to the desired temperatures. In April 1981, two eyes were heated with this technique, one eye with a retinoblastoma recurrence in the anterior part of the eye and one eye with a multiple retinoblastoma recurrence in the retina. The eyes were treated with low doses of radiation followed by hyperthermia up to 44 C for one hr. A detailed prescription of the treament will be given. With both patients the tumor is in regression. No definitive results can be given at this moment. No severe irreparable damage is seen in either of the patients. No cataract has been induced by heating the lens to 44 C for one hr, this being in agreement with our results obtained in the investigation of the cataractogenic temperature of rabbit eye-lenses. The heating technique is also suitable for the hyperthermic treatment of other intra-ocular tumors, particularly intra-ocular melanoma. (no Refs)

18. AURICULAR MALIGNANT NEOPLASMS. WHEN IS CHEMOTHERAPY (MOHS' TECHNIQUE) NECESSARY?

Bumsted RM, Ceilley RI, Panje WR, Crumley RL

Dept. Otolaryngology and Maxillofacial Surgery, Univ. Iowa Hosp. and Clinics, Iowa City, IA, 52240

Arch Otolaryngol; 107(11):721-724 1981

A prospective study of 71 auricular malignant neoplasms was performed to identify lesions with a high risk of recurrence. Previously recommended margins for conventional surgical excision were marked. Then, all lesions were excised by the Mohs' technique. The Mohs' defect was compared with previously marked margins for conventional excision. Conventional excision would have been inadequate in 13% of primary and initially recurrent lesions smaller than 1 cm (clinical examination) and in 27% of primary lesions and 33% of recurrent lesions larger than 1 cm. All cases successfully excised by excision would have resulted in a larger defect than the actual Mohs' defect. Morpheaform basal cell carcinoma was the most common lesion inadequately excised. Either cases of this histologic type or lesions larger than 1 cm or both require consideration for the use of the Mohs' technique. (Author abstract) (20 Refs)

19. RHABDOMYOSARCOMA OF THE EAR IN CHILDHOOD: A REPORT FROM THE INTERGROUP RHABDOMYOSARCOMA STUDY (MEETING ABSTRACT).

Raney RB, Lawrence W, Maurer HM, Lindberg RD, Newton WA, Ragab AH, Tefft M, Foulkes M

No affiliation given

Otolaryngol Head Neck Surg; 89(5,section2):156 1981

Twenty-four patients with rhabdomyosarcoma of the middle (22) or external ear (2) were treated from 1972 to 1978 on the intergroup rhabdomyosarcoma study (IRS) protocol. Their ages at diagnosis ranged from 1 to 14 (median age 4). Fourteen were boys and ten were girls. Three patients had grossly complete removal of tumor with local microscopic residual (group II A). Sixteen patients had gross residual local tumor (group III) after biopsy (ten) or mastoidectomy (six); five had distant metastases at diagnosis (group IV). After treatment with radiotherapy (RT) and VAC (vincristine, actinomycin D, cyclophosphamide) +/- adriamycin, 10/19 patients with localized tumor (groups II and III) are free of tumor at 2.2 to 6.6 yr from diagnosis. One group IV patient is alive with contralateral cerebellar astrocytoma 4.5 yr after initial therapy. The other 13 patients are dead of sarcoma 5 to 25 mo after diagnosis. Sites of initial recurrence in nine group III patients were the meninges in six (five had had local RT and one had had whole head RT), local recurrence (two patients), and lung metastases (one). Three group IV patients died with bone metastases; the fourth died of meningeal extension after local recurrence. Outcome was influenced by presence at diagnosis of signs indicating meningeal extension: intracranial tumor, petrous bone erosion, or facial nerve palsy. Tumor mortalities were 5/5 with intracranial tumor. Three of four additional patients had petrous erosion, 2/6 had facial palsy only, and 3/9 had no initial evidence of meningeal extension. (no Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

20. THE PATHOLOGY OF HEAD AND NECK TUMORS: CYSTS OF THE JAWS, PART 12.

Regezi JA, Courtney RM, Batsakis JG

(c/o Batsakis) Dept. Pathology, Maine Medical Center, Portland, ME, 04102

Head Neck Surg; 4(1):48-57 1981

Pathogenesis, clinical features, and behavior of odontogenic and nonodontogenic jaw cysts are reviewed; classification based on current concepts of the cysts is presented. The classification includes one nonodontogenic cyst (nasopalatine canal cyst) and seven odontogenic cysts [odont ogenic keratocyst (OKC) and primordial, dentigerous, apical peridontal, lateral peridontal, gingival, and calcifying odontogenic cysts]. Midmandibular and globulomaxilliary cysts are considered to be of odontogenic origin and are categorized as OKCs or lateral periodontal cysts. Midpalatine cyst is excluded from the classification because it is a variation of the nasopalatine cyst. Aggressive behavior and high recurrence rate of OKCs are emphasized; the possibility of exclusive development of OKCs from dental lamina rests is discussed. (30 Refs)

21. CHEMOSURGERY: MY 15 YEARS OF EXPERIENCE.

Robins P
New York Univ. Medical Center, 550 First Ave., New York, NY, 10016
J Dermatol Surg Oncol; 7(10):779-789 1981

The fresh-tissue technique of Mohs' microscopically controlled excision for basal- and squamous-cell carcinomas is described and statistics compiled from 6,982 biopsy-proven basal-cell carcinomas treated during the period 1965-1980 are presented. Advantages and disadvantages of the technique are summarized. Patients were referred for Mohs' surgery and therefore are not a random sample. Treated were 3,743 men and 3,211 women, 10-95 yr old; the greatest number (144) were 65 yr old. Of the lesions 12.64% were less than 1 cm, 45.27% were 2-2.9 cm, and 10% were greater than 5 cm. Most (2,454/6,982) basal-cell carcinomas occurred on the nose. Another region with high occurrence was the periorbital area, with 382 lesions (9.1%). Av duration of lesions before consultation was 2-5 yr. Primary lesions were seen in 3,196 patients and recurrent lesions in 3,149 patients. Cure was achieved after removal of but one layer of tissue in 25.5% of patients; approx 66% were cured after two layers had been excised. Only four patients have had metastases of their malignancies. An overall cure rate in 2,966 basal-cell carcinomas is 97.4%; rates were 98.2% and 96.6% for primary and recurrent tumors, respectively. Recurrence is analyzed with respect to sex, age, lesion size, lesion location, previous treatment, and number of stages required to eradicate neoplasms. Other topics discussed include bone and cartilage invasion, location in the center of the face, exophytic lesions, recurrent lesions in young women, surgery on ears and use of antibiotics, wound healing, time for repair, and factors affecting cure rate. Mohs' microscopically controlled excision allows thorough extirpation of malignancies and max conservation of healthy tissue. Each lesion must be treated individually. (11 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

22. PHASE II TRIAL WITH THIOPROLINE IN HEAD AND NECK (H AND N) TUMORS. PRELIMINARY RESULTS (MEETING ABSTRACT).

Boccardo F, Rosso R, Barbieri A, Guarneri D, Canobbio L, Merlano M
Ospedale S. Martino, Genoa, Italy
Twelfth International Congress of Chemotherapy, July 19-24, 1981, Florence, Italy. The International Society of Chemotherapy 301 pp., 1981.

Thioproline has been found to be effective in advanced epidermoid tumors, with no toxic effects. In particular, a 100% complete response (CR) rate was reported in head and neck (H and N) tumors, giving the drug by continuous iv infusion or im administration. In light of these findings, a phase II trial in H and N epidermoid tumors was undertaken in our Institute. The sodium salt of Thioproline (40-60 mg/kg daily) was diluted in 2000 ml of saline and then administered by continuous iv infusion for 5 days every 2 wk. Baseline studies, including measurement and photograph of the tumor, were repeated after each cycle. Pts were considered evaluable for response after 3 therapy cycles (tcs). As of Jan 1981, 16 pts entered the study and 34 tcs are available for assessment of toxicity. Neurologic toxicity was encountered in 3 cases and treatment had to be suspended in one case due to sudden coma. Thirteen pts are evaluable for response. Five out 6 pts without any prior treatment showed stable disease (SD) while 1 showed progressive disease (PD). Out of 7 pts with prior chemo- and/or radiotherapy, 1 showed a minor response, 2 SD and 4 PD. In the 2 pts, biopsies were collected before and after the completion of treatment. No changes in histological picture were showed, although the inflammatory component appeared diminished. Our preliminary results seem to indicate that Thioproline is not effective in H and N tumors, and due to possible neurologic toxicity, further investigation in humans is not warranted. (no Refs)

23. COMPLICATIONS OF POSTOPERATIVE AND PREOPERATIVE RADIATION THERAPY IN HEAD AND NECK CANCERS. A COMPARATIVE STUDY.

Mantravadi RV, Skolnik EM, Applebaum EL
Dept. Radiology, Univ. Illinois Hosp., Post Office Box 6998, Chicago, IL, 60680
Arch Otolaryngol; 107(11):690-693 1981

The complications of planned postoperative irradiation in 60 consecutive patients treated between 1975 and 1979 are compared with those seen in 92 patients treated with preoperative irradiation between 1968 and 1974. The overall rate of complications requiring additional hospitalization was 15% (9 patients) in the postoperative radiotherapy group as compared with 54% (50 patients) in the preoperative radiotherapy group. A statistically significant increase in acute complications was noted in the latter group (46 vs 3, 50% vs 5%). Delayed complications occurred with similar frequency in both groups. The 3-yr survival was comparable between similar patients of each group treated with either of the two modalities. We favor postoperative irradiation because of decreased acute complications and comparable survival. Modifications of the treatment technique are suggested to minimize the overall rate of complications. (Author abstract) (15 Refs)

24. NEUROGENIC SARCOMAS OF THE NECK IN NEUROFIBROMATOSIS.

Martin G, Kleinsasser O
Dept. Otorhinolaryngology, Philipps Univ., Deutschhausstrasse 3, D-3550 Marburg (Lahn), W. Germany
Arch Otorhinolaryngol; 232(3):273-283 1981

The clinical and pathological features of sarcomas of the neck in neurofibromatosis patients are described based on two case reports and a review of 29 cases from neurofibromatosis developed a tumor on the left side of the neck at the age of 10 yr. She first presented for treatment at age 14 yr after the tumor had started to grow rapidly for 2 mo and dyspnea had appeared. Intubation was impossible and a tracheostomy was performed. A 12 x 9 x 8 cm, apparently well-encapsulated tumor weighing 810 g was exposed. Histology indicated a polymorphic malignant tumor. A few areas of benign neurofibromatosis were observed, but most areas were highly cellular with marked atypia resembling fibrosarcomas or histiocytomas of high malignancy. Structures as in pleomorphic angiosarcoma or liposarcoma, and even biphasic structures as in synovioma, were seen. Adjuvant chemotherapy and radiotherapy were administered but the child died 12 mo after therapy initiation. Another young girl with neurofibromatosis developed a walnut-sized node in the right submandibular region. Two yr later the tumor started to grow rapidly. The apparently well-encapsulated dumb-bell tumor, 15 x 5 x 4 cm in size and medial to the mandible to the base of the skull, was excised. Histologically this tumor showed a few isolated areas of benign neurofibroma but predominantly resembled a largely cellular fibrosarcoma of high malignancy. Diagnosis and treatment of neurogenic tumors in neurofibromatosis patients are discussed. (62 Refs)

25. LIPOSARCOMA OF THE HEAD AND NECK.

Otte T, Kleinsasser O
Dept. Otorhinolaryngology, Philipps Univ., Deutschhausstrasse 3, D-3550 Marburg (Lahn), W. Germany
Arch Otorhinolaryngol; 232(3):285-291 1981

The pathology and clinical features of liposarcomas of the head and neck as seen in two patients are described, and 52 cases from the literature are reviewed. A liposarcoma on the right side of the neck below the angle of the mandible was diagnosed in a 50-yr-old man. The tumor was well-encapsulated and the size of an egg. Despite tumor excision and postoperative radiotherapy, a recurrence was seen 18 mo after surgery. Repeated operations and administration of chemotherapy notwithstanding, the patient died 5.5 yr after appearance of the first symptom. In an 86-yr-old woman, a pleomorphic, partially sclerosing liposarcoma was found below the right zygoma lying over the upper parotid pole. The tumor was excised and the patient remained free of evidence of tumor recurrence 5 yr after surgery. (21 Refs)

26. PATTERNS OF BONE DESTRUCTION BY SQUAMOUS CARCINOMAS OF THE HEAD AND NECK (MEETING ABSTRACT).

Carter RL
Haddow Laboratories, Royal Marsden Hospital, Sutton, Surrey, England
International Conference on Prostaglandins and Cancer, August 30-September 2, 1981, Washington, DC. Lombardi Cancer Center 75 pp., 1981.

Histological changes associated with bone destruction by squamous carcinomas of the head and neck have been studied in 200 major surgical resections. Invasion of contiguous bone occurred most commonly with tumors of the buccal cavity and paranasal sinuses. Three phases were identified: 1) The periosteum was breached and carcinoma cells infiltrated into bone cortex. 2) Local osteoclasts were activated and eroded cortical and trabecular bone in front of the tumor cells. 3) The osteoclasts disappeared and tumor cells (alone) invaded the bone substance. Local osteoblastic proliferation was also seen, most marked in relation to slowly growing tumors. The same histological sequence occurred when squamous carcinomas of the larynx invaded the foci of metaplastic bone which regularly develop in the laryngeal cartilages. The morphological changes described were not modified by previous radiotherapy and/or chemotherapy, and were not attributable to local infection. (no Refs)

27. PROSTAGLANDIN INHIBITOR SENSITIVE SUPPRESSOR CELLS: A PREDICTOR OF SURVIVAL IN ADVANCED HEAD AND NECK CANCER (MEETING ABSTRACT).

Panje WR, Maca R
University of Iowa, Iowa City, IA
International Conference on Prostaglandins and Cancer, August 30-September 2, 1981, Washington, DC. Lombardi Cancer Center 75 pp., 1981.

Prostaglandin inhibitor sensitive adherent suppressor cells (ISSC) have been found in peripheral blood of head and neck carcinoma patients (HNC). These mononuclear regulatory cells appear to be augmented in the presence of prostaglandin E2 (PGE2). Examination of untreated HNC patients for ISSC have demonstrated that approx 1/3 will have elevated levels. Paradoxically patients exhibiting levels of ISSC were found to have better clinical staging. A 2 yr follow up of these patients revealed that four of the seven patients with elevated ISSC levels (74%) died of cancer irregardless of stage of disease or treatment. Of the other 17 patients with ISSC less than 40% only six had died. A most significant finding was that all patients (7/7) irregardless of stage of disease had died or had evidence of distant metastasis if a persistent increase (greater than 3 mo) of 40% or greater of ISSC had occurred following treatment (surgery and/or irradiation). These findings suggest that peripheral blood ISSC levels may be important in determining prognosis. Likewise the recent finding that adjuvant administration of indomethacin to HNC patients can produce regression and stabilization of their disease would tend to support the monitoring of ISSC levels to possibly determine which patients would respond to prostaglandin inhibition therapy. (no Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

28. RECONSTRUCTION OF THE TRACHEA AFTER RESECTION FOR NEOPLASM.

Grillo HC
Massachusetts General Hosp., Boston, MA, 02114
Head Neck Surg; 4(1):2-8 1981

Details of the operative reconstruction of the trachea after resection for neoplasm are presented for 36 patients treated between 1962 and 1977. There were five hospital deaths related to the surgery. Only one death involved an upper tracheal lesion in a woman who had received high dose irradiation many yr before for residual thyroid carcinoma; the divided trachea did not heal and necrosis developed. Patients who have received 5,000-7,000 rad as many as 5 yr prior to presentation are not considered suitable candidates for resection. The incidence of granulations requiring bronchoscopy for removal has been eliminated in recent operations by use of Vicryl rather than Tevdek sutures. Stenosis occurred in two patients, one in an upper tracheal resection in a patient receiving high doses of steroids. Of patients studied up to 1977, five who had resections for squamous-cell carcinoma were alive and without known disease for 10 mo to 13.5 yr after surgery. Six patients with adenoid cystic carcinoma were alive for periods of 1 yr, 3 mo to over 15 yr. Patients with secondary tumors did poorly from the standpoint of ultimate survival, but good palliation was obtained for many; period of relief (after resection for thyroid cancer) ranged from 3.5 to 8 yr before recurrences elsewhere led to death. Attempts at staged reconstruction or laryngotracheal reconstructions usually gave poor results. (21 Refs)

29. SELECTIVE MYOTOMY FOR VOICE RESTORATION AFTER TOTAL LARYNGECTOMY.

Singer MI, Blom ED
Head and Neck Associates, 1633 North Capital Ave., Suite 780, Indianapolis, IN, 46202
Arch Otolaryngol; 107(11):670-673 1981

Reconstruction of the pharyngoesophagus after total laryngectomy avoids the development of salivary fistulae and restores satisfactory swallowing. Successful techniques for closure include multiple layers of tissue, selected suture materials, the application of postoperative radiation therapy, and modified neck dissection. In addition, vocal rehabilitation has been traditionally associated with the formation of a pharyngoesophageal segment capable of producing sound after air insufflation. A 3-yr experience with 129 patients after they underwent a total laryngectomy and tracheoesophageal shunt showed that 16 patients (12%) failed to achieve satisfactory speech after tracheoesophageal puncture because of pharyngoesophageal spasm. Response to percutaneous block of the pharyngeal plexus and subsequent myotomy of the cricopharyngeus and pharyngeal constrictor muscles was assessed in 14 patients. Increased pharyngoes ophageal tone after total laryngectomy seems to be an important factor in the failure to acquire esophageal voice. (Author abstract) (12 Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

30. CANCER OF THE HEAD AND NECK IN ATOMIC BOMB SURVIVORS: HIROSHIMA AND NAGASAKI, 1957-1976.

Pinkston JA, Wakabayashi T, Yamamoto T, Asano M, Harada Y, Kumagami H, Takeuchi M
Editorial Office, Radiation Effects Res. Foundation, 5-2 Hijiyama Park, Minami-ku, Hiroshima, 730, Japan
Cancer; 48(10):2172-2178 1981

A search was conducted in Hiroshima and Nagasaki for all cases of cancer of the lip, nose and nasal cavity, accessory sinuses, larynx, and the oral cavity and pharynx with their subdivisions occurring during the period 1957-1976 among a large, fixed cohort of atomic bomb survivors. A total of 232 cases were identified, of which 154 (66.4%) were histologically confirmed (definite cases). Among definite cases, cancer of the epiglottis and larynx predominated (31.2%), followed by accessory sinus (24.7%) and tongue (18.8%). Of the 154 definite cases, 141 (91.6%) were squamous-cell carcinomas. Only two sarcomas were identified, neither of which was attributable to radiation exposure. Analysis of both total and definite cases, by both total group and major anatomic site, failed to reveal definite evidence of a radiation relationship. Although a suggestive relationship to radiation dose was found for accessory sinus cancers ($p = 0.06$) among the definite cases, inconsistencies in the data do not permit the conclusion that the incidence of tumors in this group increased as a result of atomic bomb radiation exposure. The medical literature concerning post-irradiation head and neck tumors is briefly reviewed. (Author abstract) (39 Refs)

31. VOLCANOES AND CARCINOMA OF THE THYROID: A POSSIBLE ASSOCIATION.

Kung TM, Ng WL, Gibson JB
(c/o Ng) Dept. Pathology, Univ. Hong Kong, Queen Mary Hosp., Hong Kong, Hong Kong
Arch Environ Health; 36(5):265-267 1981

Environmental factors contributing to incidences of thyroid carcinoma are re-evaluated and emphasized in this study. Thyroid cancers appear to occur independent of endemic goiter, based on epidemiologic and histologic evidence. While environmental factors appear to be important, the specific etiologic agent has not yet been identified or suggested. The number of thyroid cancer incidences available from cancer registries are analyzed in an attempt to identify a specific environmental carcinogenic agent. The presence of active volcanoes that produce abundant lava is found to be the common denominator of Iceland and Hawaii, where the incidence of thyroid cancer is outstandingly high. Comparison with other areas with active volcanoes is made. The presence of a carcinogenic agent in the lava is postulated and its possible mode of action on humans through fish products is hypothesized. (Author abstract) (18 Refs)

☆ U.S. GOVERNMENT PRINTING OFFICE : 1982—361-847/113

AUTHOR INDEX WITH CITATION NUMBERS

Applebaum EL 23
Asano M. 30
Barbieri A. 22
Batsakis JG 20
Beery Q. 1
Bertrand JC 10
Black B. 4
Blom ED 29
Boccardo F. 22
Bogatyrev OP 14
Bumsted RM 18
Bush RS 4
Busnardo B. 15
Byers RM 9
Canobbio L. 22
Carter RL 26
Casara D. 15
Caselitz J. 12
Ceilley RI 18
Christ JE 6
Cipra D. 3
Compere JF 10
Courtney RM 20
Covell JL 11
Crumley RL 18
Cummings BJ 4
Curtin H. 1
Deboise A. 10
Dekker A. 7
Duvall J. 16
Effron MZ 1
Feldman S. 11
Foulkes M. 19
Gibson JB 31
Girelli ME 15
Goepfert H. 3
Goepfert H. 5
Grillo HC 28
Gruber F. 2
Guarneri D. 22
Guilbert F. 10
Hammer C. 2
Harada Y. 30
Jesse RH 6
Johnson JT 1
Johnson JT 7
Kalinin AP 14
Kini SR 13
Kleinsasser O. 24
Kleinsasser O. 25
Kumagami H. 30
Kung TM 31
Lagendijk JJ 17
Larson DL 6
Lawrence W. 19
Ledoux P. 10
Leuszler RW 8
Lindberg RD 19
Lindberg RD 5
Lininger JR 11
Loning T. 12
Lucas DR 16
Maca R. 27
Mamedov AZ 14
Manfe AZ 15
Mang W. 2
Mantravadi RV 23
Martin G. 24
Maurer HM 19
Medina JE 3
Merlano M. 22
Miller JM 13
Moran ME 5
Myers EN 1
Myers EN 7
Newman RK 9
Newton WA 19
Ng WL 31
Otte T. 25
Panje WR 18
Panje WR 27
Pelizzo MR 15
Pinkston JA 30
Pravdin VA 14
Ragab AH 19
Raney RB 19
Rauth AM 4
Regezi JA 20
Robins P. 21
Rosso R. 22
Schipper J. 17
Seifert G. 12
Shapshay SM 8
Sigler B. 1
Singer MI 29
Skolnik EM 23
Smith MJ 13
Sorrenti V. 4
Strong M. 8
Takeuchi M. 30
Tefft M. 19
Thomas GM 4
Toth B. 3
Turner J. 7
Vaillant JM 10
Wakabayashi T. 30
Yamamoto T. 30

CANCER INFORMATION? CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · CANCERLINE · **JUST MENTION OUR NAME**

Mention CANCERLINE to your librarian and the world's foremost collection of cancer information is at your disposal. With the help of this computerized data system, you can obtain information on the following:

Cancer Literature

The literature date base, **CANCERLIT**, allows you to survey more than 3,000 biomedical journals for information on your topic of interest. Your search will also alert you to meeting proceedings, monographs, and books published in that area. Informative abstracts averaging 200 words are provided with each citation;

Current Cancer Research

The data base **CANCERPROJ** allows you to retrieve descriptions of current work in any cancer research area. The descriptions, which state research objective, methodology, and experimental results, are supplied for projects underway in 77 countries around the world.

Cancer Therapy Protocols

The **CLINPROT** section of CANCERLINE is designed primarily for clinicians. It provides detailed summaries of currently active experimental protocols for any cancer site, agent, or type.

Ask your biomedical librarian about CANCERLINE.
CANCERLINE is sponsored by the International
Cancer Research Data Bank—a program of the
National Cancer Institute.

CANCERLINE

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/04

NCI/ICRDB/CT11 82/04

PB82-938504

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/04

APRIL, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
MAY 5 1982
U. S. GOVT. PUBS.
DEPOSITORY 376

AVAILABLE: DIRECTORY OF CANCER RESEARCH INFORMATION RESOURCES, 1981 EDITION. FOR A COMPLIMENTARY COPY, CONTACT ICRDB PROGRAM, WESTWOOD BLDG., RM. 10A18, BETHESDA, MD. 20205

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS....... 1-3
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS....... 4
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS....... 5-11
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS....... 12-17
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES....... 18-19
- PROGRESS IN RECONSTRUCTION AND REHABILITATION....... 20-22
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS....... 23

ORAL CAVITY AND OROPHARYNX TUMORS

1. MUCOEPIDERMOID CARCINOMA OF THE ORAL CAVITY.

Olsen KD, Devine KD, Weiland LH
Sect. Publications, Mayo Clinic, Rochester, MN, 55905
Otolaryngol Head Neck Surg; 89(5):783-791 1981

The etiology, pathobiology, and treatment of mucoepidermoid carcinoma of the oral cavity are discussed. Mucoepidermoid tumors constitute 10% of intraoral salivary gland tumors. Low-grade mucoepidermoid tumors are defined by a differenti-

HE 20. 3173/2:

ation directed toward the production of mucous cells rather than squamous cells. High-grade mucoepidermoid carcinoma results when squamous cells predominate. Of 54 patients (31 women, 23 men) treated over a 25 yr period, mucoepidermoid tumors arose from the hard palate in 16 cases and from the soft palate in 6. The base of the tongue was the second most common location, affecting 11 patients. Cervical lymph node metastasis occurred in 13 patients. Surgery was the only treatment in 45 cases. Surgery plus radiotherapy was used in eight patients, and radiation alone was used in one case. Survival did not differ significantly from expected survival in age-matched controls. However, tumor size was of predictive value in estimating length of survival. (19 Refs)

2. MELANOCYTE COLONIZATION OF ORAL SQUAMOUS CELL CARCINOMA.

Dunlap CL, Tomich CE
(c/o Tomich) Dept. Oral Pathology, Indiana Univ. Sch. Dentistry, 1121 West Michigan St., Indianapolis, IN, 46202
Oral Surg; 52(5):524-530 1981

This is a report of squamous carcinomas of the oral mucosa which have been colonized by benign melanocytes. In some tumors, melanocytes undergo hyperplasia and are found not only within the in situ portions of tumors but also in the infiltrative portion. Literature is cited which indicates that benign melanocytes may also colonize intravascular tumor emboli and metastatic foci. (Author abstract) (3 Refs)

3. HERPES SIMPLEX VIRUS AND ORAL CANCER.

Cohen WL
Maxillofacial Clinic, Univ. California, Los Angeles, CA, 90024
Dent Hyg; 55(11):31-39 1981

Herpes simplex viruses are reviewed and evidence for association between herpes simplex virus type I and oral cancer is discussed. First reports of an association between HSV-I and oral cancer in 1957 (in 6 elderly patients who developed carcinoma of the lip at a site of frequent herpetic infection) were anecdotal. No confirming reports were published and two clinicians found no such association in their clinical practice. Establishment of such an association is difficult because of the interaction of other factors or cofactors in development of oral cancer, including ethnic background or genetic predisposition, and chemical or thermal carcinogens such as alcohol and tobacco. Other cofactors may include gummatous lesions of syphilis, chronic irritants (poorly fitting dentures), and environmental factors such as air and water pollution. (22 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

4. MALIGNANT LYMPHOMA IN THE NOSE: CLINICOPATHOLOGICAL DIFFERENCES FROM THE MALIGNANT HISTIOCYTOSIS PRESENTING AS LETHAL MIDLINE GRANULOMA.

Aozasa K, Ikeda H, Masaki N, Watanabe Y
Dept. Pathology, Faculty Medicine, Osaka Univ., Nakanoshima 4-chome 3-57, Kita-Ku, Osaka, 530, Japan
Pathol Res Pract; 172(1/2):161-169 1981

The clinical records and histologic materials from seven cases with malignant lymphoma (ML) in the nose were examined, and the results were compared to those in malignant histiocytosis (MH) presenting as lethal midline granuloma previously reported by us. The main differences in the clinical findings were (1) younger initiation of the disease in MH than in ML (mean values were 56 and 37 yr of age, respectively); (2) ML showed a polypoid nasal mass with necrosis but MH showed necrotic granulomatous lesions; and (3) much better survival in ML than in MH. The histological findings of malignant lymphoma differed from malignant histiocytosis not only in monotony but also in cytologic details. Alpha-naphthyl acetate and butyrate esterase reactions gave clear distinction between the two diseases. From these findings, we conclude that malignant lymphoma should be clinicopathologically separated from malignant histiocytosis. (Author abstract) (17 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

5. ADULT ONSET LARYNGEAL PAPILLOMATOSIS.

Johnson JT, Barnes EL, Justice W
Eye and Ear Hosp. Pittsburgh, 230 Lothrop St., Pittsburgh, PA, 15213
Otolaryngol Head Neck Surg; 89(5):867-873 1981

A retrospective analysis of the charts of 22 patients with onset of laryngeal papillomatosis after the age of 18 yr revealed characteristic hoarseness, multiple lesions in 50%, and an absence of laryngeal malignancy. Neither mitosis nor dysplasia correlated with subsequent clinical behavior. Histology and pathology of papillomas of the adult larynx are discussed. (8 Refs)

6. COMPUTED TOMOGRAPHY IN CARCINOMA OF THE LARYNX AND PIRIFORM SINUS.

Sokjer H, Olofsson J
Dept. Radiology, Linkoping Univ. Hosp., S-581 85 Linkoping, Sweden
Clin Otolaryngol; 6(5):335-343 1981

Since the conventional methods of examination do not furnish a complete picture of deep extension of carcinoma of the larynx (CL) and piriform sinus (PS) the purpose of this study was to ascertain whether further information in this respect might be provided by computed tomography (CT). Often the only sign of deep invasion is vocal cord fixation. This study presents the investigation of of 12 patients with primary carcinoma; 10 patients with CL, and 2 with PS. Two patients with CL were treated only by radiotherapy (RT), and eight by a combination of preoperative RT and total laryngectomy (6 patients) or horizontal supraglottic laryngectomy (2 patients). Patients with PS carcinoma were treated by RT followed by laryngectomy and partial pharyngectomy. Results of examinations by CT were assessed based on findings in whole-organ serial sections in the transverse plane in eight patients with CL and two with PS carcinoma. In two patients with CL carcinoma not undergoing operation the findings yielded by CT were compared to the laryngoscopic assessment and the findings at a clinical follow-up after a full course of RT. CT adds valuable information on the deep invasion of the tumor, the spread lateral to the arytenoid cartilage, to the lar yngeal framework, and the spread outside the larynx. (15 Refs)

7. MUCOEPIDERMOID CARCINOMA OF THE HYPOPHARYNX.

Tom LW, Wurzel JM, Wermore RF, Lowry LD
(c/o Lowry) Dept. Orolaryngology, Thomas Jefferson Univ., 1025 Walnut St., Philadelphia, PA, 19107
Otolaryngol Head Neck Surg; 89(5):753-757 1981

Literature data on 32 reported cases of mucoepidermoid carcinoma of the larynx and hypopharynx are summarized, and an additional case of mucoepidermoid carcinoma of the hypopharynx proper is presented. A 47-yr-old woman was seen with dysphagia, wt loss, and a mass on the left side of the neck. Indirect laryngoscopy showed a tumor in the left pyriform sinus. Histological examination of biopsy specimen indicated squamous cell carcinoma. The lesion was staged as T2N2BM0 carcinoma of the hypopharynx. The patient underwent laryngopharyngectomy, left-sided radical neck dissection, and partial thyroidectomy. The cervical lymph nodes contained glandular structures. Mucicarmine staining of both the primary tumor and lymph node specimens was positive, and the histological diagnosis was changed to high-grade mucoepidermoid carcinoma. At the follow-up (20 mo postoperatively) the patient was free of disease. (25 Refs)

8. RADICAL RESECTION FOR CANCER OF THE HYPOPHARYNX AND CERVICAL OESOPHAGUS WITH REPAIR BY STOMACH TRANSPOSITION.

Harrison DF, Thompson AE, Buchanan G
Royal Natl. Throat, Nose and Ear Hosp., London WC1, England
Br J Surg; 68(11):781-783 1981

The results of 58 consecutive cases of pharyngolaryngo-esophagectomy and pharyngogastric anastomosis are presented. The Grey Turner technique is used, but modified by adding bilateral chest drainage established by guidance from below the diaphragm and a jejunostomy. The immediate postoperative therapy management of hypocalcemia with calcium gluconate and long term control with calciferol is described. An overall 3-yr survival rate of 29% has been obtained. Seven patients survived longer than 7 yr, the longest living over 10 yr. The authors conclude that, with careful management this technique is within the compass of competent surgeons with good facilities and should be the surgical treatment of choice for these difficult tumors. (Author abstract) (16 Refs)

9. A 'WATCHFUL WAITING' POLICY FOR IN SITU CARCINOMA OF THE VOCAL CORDS.

Hintz BL, Kagan AR, Nussbaum H, Rao AR, Chan PY, Miles J
Dept. Radiation Therapy, Southern California Permanente Medical Group, 1510 N. Edgemont St., Los Angeles, CA, 90027
Arch Otolaryngol; 107(12):746-751 1981

Forty-five patients with vocal cord (VC) carcinoma in situ diagnosed by biopsy or VC stripping have been retrospectively analyzed. Eighteen patients received irradiation therapy immediately on diagnosis. The initial local control (LC) rate was 72% (13/18); the salvage-augmented LC rate was 94% (17/18). Twenty-seven patients with in situ carcinoma were treated expectantly ('watchful waiting'), receiving definitive radiotherapy or definitive surgery only if invasion was subsequently verified histologically. One third of the patients' carcinomas have not become invasive (mean follow-up, 50 mo). Of the two thirds that became invasive, one third were more advanced than T1N0 when treated - often because patients missed scheduled follow-up appointments. Nevertheless, the initial LC rate was 65% (11/17); the salvage-augmented LC rate was 88% (15/17). Total laryngectomy was required twice as often in the watchful waiting group as in the immediately treated group. (Author abstract) (12 Refs)

10. STOMAL RECURRENCE: A CRITICAL ANALYSIS OF RISK FACTORS.

Mantravadi R, Katz AM, Skolnik EM, Becker S, Freehling DJ, Friedman M

Dept. Radiology, Univ. Illinois Hosp., P.O. Box 6998, Chicago, IL, 60680

Arch Otolaryngol; 107(12):735-738 1981

Stomal recurrence developed in 5% of the 507 patients who underwent total laryngectomy for a squamous cell carcinoma. The most common site of the primary tumor was the glottis, followed by the supraglottic and pyriform sinus regions. Initial subglottic extension of the tumor and metastatic lymphadenopathy were the most significant risk factors. The primary tumor size, prior emergency tracheostomy, and conservation surgical procedures had no effect on the incidence of stomal recurrence. The median survival in patients with stomal malignant neoplasms was only 5 mo. In high-risk patients, extended dissection or elective postoperative radiotherapy is recommended. (Author abstract) (22 Refs)

11. CARCINOMA OF THE TONSIL: ANALYSIS OF 162 CASES.

Givens CD, Johns ME, Cantrell RW

(c/o Johns) Div. Head and Neck Oncology, Dept. Otolaryngology, Univ. Virginia Medical Center, Charlottesville, VA, 22908

Arch Otolaryngol; 107(12):730-734 1981

The treatment of 162 patients with squamous cell carcinoma of the tonsil seen at the University of Virginia Medical Center, Charlottesville, from 1955 through 1974 was reviewed. One hundred four patients form the basis of this report. The patients were grouped by the stage of disease, and then 3-and 5-yr determinate survival, recurrences, distant metastases, and complications were examined. The treatment used was surgery, radiation, or a combination of preoperative radiation and surgery. The overall 5-yr determinate survival for Stage I was 93%; Stage II, 57%; Stage III, 27%; and Stage IV, 17%. The 5-yr determinate survivals of patients treated with surgery alone, radiation, and combination therapy were 88%, 27%, and 32%, respectively. The latter two treatment modalities were biased by a greater proportion of patients with Stage III and IV disease, whereas surgery alone included a high proportion of patients with Stage I and Stage II disease. Based on this review and those reported in the literature, we recommend radical radiation therapy for Stage I and II disease and combination radiation therapy and composite resection for Stages III and IV. (Author abstract) (36 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

12. COMPUTED TOMOGRAPHY FOR LOCALIZATION OF PARATHYROID ADENOMAS.

Whitley NO, Bohlman M, Connor TB, McCrea ES, Mason GR, Whitley JE

Dept. Diagnostic Radiology, Univ. Maryland Hosp., 22 South Greene St., Baltimore, MD, 21201

J Comput Assist Tomogr; 5(6):812-817 1981

Fourteen consecutive patients with the clinical diagnosis of primary hyperparathyroidism had computed tomography (CT) preoperatively to evaluate the use of CT in localizing parathyroid adenomas. The patients were scanned from above the level of the thyroid cartilage to the bifurcation of the trachea. Computed tomography correctly identified, prospectively, the site of the adenoma in 7 of 14 patients, including one adenoma that was ectopic in location. Nine of these patients also had barium esophagrams, and this study was accurate in only three of the nine. Our study suggests that CT may be beneficial in the preoperative localization of parathyroid adenomas, particularly those in ectopic locations. (Author abstract) (10 Refs)

13. HIGH-RESOLUTION REAL-TIME SONOGRAPHY OF THE PARATHYROID.

Simeone JF, Mueller PR, Ferrucci JT, VanSonnenberg E, Wang CA, Hall DA, Wittenberg J

Dept. Radiology, Massachusetts General Hosp., Boston, MA, 02114

Radiology; 141(3,part1):745-751 1981

High-resolution real-time sonography was performed in 45 patients with the clinical diagnosis of hypercalcemia and suspected hyperparathyroidism. There were 35 true positives, 4 false positives, 5 false negatives and 1 true negative. The sensitivity of the technique was 88%, the specificity was 96%, and the predictive value was 90%. Sonography is the procedure of choice for localization of the enlarged parathyroid gland before the neck is surgically explored. (Author abstract) (7 Refs)

14. 'HYALINE CELLS' IN PLEOMORPHIC ADENOMA OF SALIVARY GLAND ORIGIN.

Buchner A, David R, Hansen LS

(c/o Hansen) Div. Oral Pathology, Sch. Dentistry, Univ. California, Room 524-S, San Francisco, CA, 94143

Oral Surg; 52(5):506-512 1981

Fifty-two cases of pleomorphic adenoma of minor salivary gland origin and seventy-two cases of pleomorphic adenoma of major salivary gland origin were examined for the presence of hyaline cells (plasmacytoid cells). Hyaline cells were found in 38% of the minor salivary gland cases and 21% of the major salivary gland cases. When stained with hematoxylin and eosin, the hyaline cells exhibited an eccentric nucleus and a striking homogenous, ground-glass eosinophilic cytoplasm. At the ultrastructural level, the cytoplasm of the hyaline cells was closely packed with intermediate-sized filaments having no apparent orientation. It is suggested that the hyaline cells are modified myoepithelial cells. (Author abstract) (18 Refs)

15. PAROTID GLAND PATHOPHYSIOLOGY AFTER MIXED GAMMA AND NEUTRON IRRADIATION OF CANCER PATIENTS.

Anderson MW, Izutsu KT, Rice JC

Childrens Orthopedic Hosp., 4800 Sandpoint Way N.E., Post Office Box C 5371, Seattle, WA, 98105

Oral Surg; 52(5):495-500 1981

Electrolyte and protein concentrations were measured in parotid saliva samples obtained from patients receiving localized, fractionated, neutron and gamma irradiation for the treatment of cancer. Salivary sodium chloride concentration increased transiently but then usually decreased to preirradiation values after 2 wk of therapy. There were concurrent decreased in salivary flow rate, pH, and bicarbonate concentration. The decreases in sodium chloride concentration and flow rate are inconsistent with a previously suggested, irradiation-induced ductal sodium resorption defect. The findings contribute toward understanding how salivary gland physiology is altered in irradiation injury. (Author abstract) (23 Refs)

16. CISPLATIN THERAPY FOR ADENOID CYSTIC CARCINOMA.

Schramm VL, Srodes C, Myers EN

Dept. Otolaryngology, Eye and Ear Hosp., Room 1115, 230 Lothrop St., Pittsburgh, PA, 15213

Arch Otolaryngol; 107(12):739-741 1981

Adenoid cystic carcinoma of salivary gland origin is a relentless disease that produces a high rate of local recurrence, metastases, and death, regardless of the type of treatment. There have been few previous reports of effective chemotherapy. Cisplatin has been chosen for a trial in the treatment of patients with persistent, recurrent, or metastatic adenoid cystic carcinoma because of its demonstrated activity against a variety of tumor types, especially those with a low growth fraction. Ten patients have been included in a pilot study. Seventy percent of these patients have had a favorable subjective response and objective tumor regression. Further clinical trials are suggested. (Author abstract) (8 Refs)

17. CYTOPATHOLOGY OF HURTHLE CELL LESIONS OF THE THYROID GLAND BY FINE NEEDLE ASPIRATION.

Kini SR, Miller JM, Hamburger JI

Cytopathology Lab., Henry Ford Hosp., 2799 West Grand Blvd., Detroit, MI, 48202

Acta Cytol (Baltimore); 25(6):647-652 1981

The increasing use of fine needle aspiration biopsy of the thyroid has refocused attention on Hurthle cell lesions. From 2,317 cytologic studies on 'cold' nodules, 70 diagnoses of Hurthle cell tumor were made. Of 49 thought to be cytologically benign 37 were confirmed histologically; 3 others were carcinoma, 5 were autoimmune thyroiditis, and 4 were nodular goiter. Of eight considered to be cytologically malignant, histology confirmed six carcinomas and two benign tumors. Identification of nonneoplastic Hurthle cell lesions required experience. Differentiation of benign and malignant Hurthle cell tumors with a high degree of accuracy is probably not possible cytologically with the present state of our knowledge. (Author abstract) (8 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

18. NEW APPROACHES TO TREATING HEAD AND NECK CANCER.

Forastiere AA
Baltimore Cancer Res. Center, Univ. Maryland Hosp., Baltimore, MD
Mediguide Oncol; 1(5):1-5,11 1981

Factors that influence the response of head and neck cancers to treatment and results of chemotherapy trials are reviewed. The trials involved palliation of recurrent disease with single agents [methotrexate (MTX), cis-platinum (DDP), or bleomycin (BLM)], combination chemotherapy [eg, MTX, BLM, cyclophosphamide, and 5-fluorouracil (FU)] in patients with recurrent disease, and adjuvant chemotherapy (DDP and/or BLM) in newly diagnosed patients. Results of simultaneous chemotherapy (FU or BLM) and radiotherapy also are reported. The combined modality trials have not proved to be more beneficial than radiotherapy alone, and no single drug or combination regimen has proved to be more effective than low-dose weekly MTX. (8 Refs)

19. A PHASE II TRIAL OF M-AMSA IN HEAD AND NECK CANCER.

Forastiere AA, Young CW, Wittes RE
(c/o Wittes) Solid Tumor and Developmental Chemotherapy Services, Memorial Sloan-Kettering Cancer Center, Dept. Medicine, 1275 York Ave, New York, NY, 10021
Cancer Chemother Pharmacol; 6(2):145-146 1981

Twenty-three patients with histologically proven, advanced epidermoid carcinoma of the head and neck were treated with 4'-(9-acridinylamino) methanesulfon-m-anisidide (AMSA). AMSA at a dose of 120 mg/square meter (m2) was given to patients with Karnofsky performance status greater than or equal to 70 and adequate bone marrow reserve; patients with performance status of 50-60 or compromised marrow function from extensive prior radiation therapy and/or chemotherapy received 90 mg/m2. AMSA was administered by iv infusion over 30 min every 3 wk. The dose was escalated by 30 mg/m2 for WBC nadirs of less than or equal to 3,000/cubic mm and reduced by 30 mg/cubic mm for WBC nadirs of less than or equal to 1,000/cubic mm. In the 20/23 evaluable patients, one minor response lasting 2 mo in a patient with tongue carcinoma and one mixed response in a patient with recurrent disease of the maxillary antrum (partial regression at the primary site, but simultaneous development of lung metastases) were noted. Both of these patients had received extensive prior treatment with radiation and chemotherapy. No major therapeutic responses were observed. Most patients had at least two courses of AMSA. The chief dose-limiting toxicity was leukopenia. No clinically significant thrombocytopenia occurred. Other side effects, occurring in 30% of patients, were mild nausea, vomiting, and stomatitis of brief duration. AMSA appears to have no useful activity in the dose and schedule given for patients with epidermoid head and neck cancer. (8 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

20. IMMEDIATE MANDIBULAR RECONSTRUCTION: HUMAN EXPERIENCE WITH AUTOGENOUS FROZEN MANDIBULAR GRAFTS.

Leipzig B, Cummings CW
Dept. Otolaryngology, 4301 Markham St., Little Rock, AR, 72205
Otolaryngol Head Neck Surg; 89(5):879-881 1981

The use of autogenous frozen mandibular grafts in the reconstruction of large mandibular arch defects immediately following ablative surgery is described. Six patients had cancers involving the anterior floor of the mouth or mandible; attempts at reconstruction failed in all cases due to intraoral complications and lack of vascularization. (7 Refs)

21. THE FREE JEJUNAL GRAFT IN HEAD AND NECK RECONSTRUCTION.

Gluckman JL, McDonough J, Donegan JO, Crissman JD, Fullen W, Shumrick DA
Dept. Otolaryngology, Univ. Cincinnati Medical Center, 231 Bethesda Ave., Cincinnati, OH, 45267
Laryngoscope; 91(11):1887-1895 1981

Reconstruction of the pharynx and cervical esophagus presents a tremendous surgical challenge to the Head and Neck Surgeon. Over the past 2 yr the free jejunal graft with microvascular anastomosis has been used in 12 consecutive cases. Careful follow-up included not only clinical assessment, but regular radiographic evaluation, as well as fiberoptic esophagoscopy and biopsy of the jejunum. In our experience the indications for this procedure can be classified as follows: (1) Total laryngopharyngectomy and partial esophagectomy for malignancy. (2) Radical pharyngeal resection for stomal recurrence after previous failed total laryngectomy (including mediastinal dissection). (3) Persistent benign pharyngeal stricture refractory to conservative management. (4) Second-stage pharyngeal reconstruction in patients with a pharyngostome and esophagostome. Aspects of the technique will be presented, as well as an analysis of the results. These results have proved most encouraging with only one absolute failure. Major advantages are a significant shortening of hospital stay and a much earlier and easier rehabilitation as compared to other methods of reconstruction. The only other significant complications in the series were stricture at the lower anastomosis and a temporary pharyngocutaneous fistula in one case. In conclusion, we at the University of Cincinnati Medical Center are of the opinion that free jejunal graft offers an excellent safe and relative easy method of pharyngeal and cervical esophageal reconstruction with significant advantages over other techniques. (Author abstract) (27 Refs)

22. IMMEDIATE RECONSTRUCTION OF THE PHARYNX AND CERVICAL ESOPHAGUS WITH THE PECTORALIS MAJOR MYOCUTANEOUS FLAP FOLLOWING LARYNGOPHARYNGECTOMY.

Withers EH, Franklin JD, Madden JJ, Lynch JB
Suite 310, Memorial Hosp. Prof. Building, 7777 Southwest Freeway, Houston, TX, 77074
Plast Reconstr Surg; 68(6):898-904 1981

The 'island' pectoralis major myocutaneous flap has been used in nine patients for immediate hypopharyngeal and cervicoesophageal reconstruction following laryngopharyngectomy.

Two patients underwent total hypopharyngeal and cervicoesophageal reconstruction. Postoperative evaluation revealed adequate lumens with no evidence of stricture. There was retained innervation of the flaps through the lateral pectoral nerve, but no additional innervation from the cricopharyngeal musculature could be demonstrated. Normal esophageal motility was maintained, but cervicoesophageal pressures were diminished. Donor site morbidity was minimal, and the complication rate was low. We present the pectoralis major myocutaneous flap as an alternate method for hypopharyngeal and cervicoesophageal reconstruction. (Author abstract) (7 Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

23. ERYTHROCYTE POLYAMINE DETERMINATIONS IN PATIENTS WITH HEAD AND NECK CANCER.

Shideler CE, Johns ME, Cantrell RW, Shipe JR, Wills MR, Savory J (c/o Johns) Div. Head and Neck Oncology, Univ. Virginia Medical Center, Box 430, Charlottesville, VA, 22908

Arch Otolaryngol; 107(12):752-754 1981

Erythrocyte polyamine levels were measured in the blood from 29 untreated patients whose conditions were diagnosed as head and neck cancer. Only nine (31%) of these patients had elevations of erythrocyte spermidine and/or spermine levels above the reference ranges determined for normal persons. However, a positive correlation was observed between the erythrocyte spermidine levels and the clinical tumor stage. Serial erythrocyte polyamine determinations were performed on the blood from 12 of these patients before and after either surgical or radiation therapy. In 11 of the cases, the erythrocyte spermidine levels decreased after tumor therapy regardless of whether there was prior elevation above the reference range. The erythrocyte spermine levels in these patients were more variable in their response to tumor treatment. Therefore, although erythrocyte polyamine levels were only slightly to moderately elevated in response to the small tumors characteristic of the head and neck, the measurement of erythrocyte spermidine, potentially, may offer a simple and effective means of monitoring the course of therapy used in patients with head and neck cancer. (Author abstract) (23 Refs)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—361-847/116

AUTHOR INDEX WITH CITATION NUMBERS

Anderson MW 15
Aozasa K 4
Barnes EL 5
Becker S 10
Bohlman M 12
Buchanan G 8
Buchner A 14
Cantrell RW 11
Cantrell RW 23
Chan PY 9
Cohen WL 3
Connor TB 12
Crissman JD 21
Cummings CW 20
David R 14
Devine KD 1
Donegan JO 21
Dunlap CL 2
Ferrucci JT 13
Forastiere AA 18
Forastiere AA 19
Franklin JD 22
Freehling DJ 10
Friedman M 10
Fullen W 21
Givens CD 11
Gluckman JL 21
Hall DA 13
Hamburger JI 17
Hansen LS 14
Harrison DF 8
Hintz BL 9
Ikeda H 4
Izutsu KT 15
Johns ME 11
Johns ME 23
Johnson JT 5
Justice W 5
Kagan AR 9
Katz AM 10
Kini SR 17
Leipzig B 20
Lowry LD 7
Lynch JB 22
Madden JJ 22
Mantravadi R 10
Masaki N 4
Mason GR 12
McCrea ES 12
McDonough J 21
Miles J 9
Miller JM 17
Mueller PR 13
Myers EN 16
Nussbaum H 9
Olofsson J 6
Olsen KD 1
Rao AR 9
Rice JC 15
Savory J 23
Schramm VL 16
Shideler CE 23
Shipe JR 23
Shumrick DA 21
Simeone JF 13
Skolnik EM 10
Sokjer H 6
Srodes C 16
Thompson AE 8
Tom LW 7
Tomich CE 2
VanSonnenberg E 13
Wang CA 13
Watanabe Y 4
Weiland LH 1
Wermore RF 7
Whitley JE 12
Whitley NO 12
Wills MR 23
Withers EH 22
Wittenberg J 13
Wittes RE 19
Wurzel JM 7
Young CW 19

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/05

NCI/ICRDB/CT11 82/05

PB82-938505

ICRDB CANCERGRAM

INTERNATIONAL CANCER RESEARCH DATA BANK

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/05

MAY, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
JUN 9 1982
U. S. GOVT. PUBS.
DEPOSITORY 376

NOW AVAILABLE: COMPILATION OF EXPERIMENTAL CANCER THERAPY PROTOCOL SUMMARIES, 1982. FOR A COMPLIMENTARY COPY, CONTACT ICRDB PROGRAM, WESTWOOD BLDG., RM. 10A18, BETHESDA, MD. 20205

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS........ 1-2
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS........ 3-4
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS........ 5-6
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS........ 7-12
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS........ 13-14
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS........ 15-19
- MONO-MODAL, ADJUNCTIVE, MULTIMODAL OR COMBINED THERAPIES........ 20-25
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS........ 26

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

ORAL CAVITY AND OROPHARYNX TUMORS

1. A MONITORING SYSTEM TO PREDICT THE SENSITIVITY OF CARCINOMAS OF THE ORAL CAVITY TO RADIOTHERAPY (MEETING ABSTRACT).

Costa A, Silvestrini R, Molinari R
Istituto Nazionale Tumori, Milan, Italy
UICC Conference on Clinical Oncology, October 28-31, 1981, Lausanne, Switzerland. International Union Against Cancer 131 pp., 1981.

With the present study we proposed to investigate an indicator or a monitoring system to predict in the shortest time the response to radiotherapy. The 3H-thymidine labeling index (LI) was determined on 38 T2 or T3 squamous cell carcinomas of the oral cavity prior to and after 10 Gray (Gy) of treatment. For the LI determination small fragments obtained from biopsies were incubated at 37C for 1 hr in agitation with DNA-labeled precursor. Histologic sections were processed by autoradiography according to the stripping film technique. Three treatment protocols were used. All patients received fractionated treatment: 30-40 Gy/3-4 wk given as 5 daily fractions of 2 Gy. A first group of 23 patients continued the irradiation scheme up to 60-70 Gy; a second of 7 patients was submitted to surgery, and a third group of 8 patients received a 192Ir implant. A statistical difference (p less than 0.001) was observed between the median value of pretreatment LI0 (10%) and the median LI value after 10 Gy (3%). An inhibition of maliferative activity was observed in 29 of 38 tumors studied and an enhancement up to 2000 x in the other 9. The clinical relevance of the LI0 and of its variation after 10 Gy was evaluated for the first group of 23 patients homogeneously treated with external beam radiotherapy. The LI0 proved not to be indicative of the clinical response after radiotherapy. The reduction in proliferative activity after 10 Gy was also not indicative of early clinical response (tumor vol reduction), but it was significantly indicative of disease-free survival (DFS). In fact, patients with a LI reduction of more than 70% after 10 Gy had a probability of DFS at 42 mo significantly higher (p less than 0.005) than that observed for patients whose tumors showed a lower inhibition or an enhancement of LI0. (no Refs)

2. COMBINED RADIOSENSITIZATION AND RADIOPROTECTION FOR ORAL CAVITY TUMORS: STUDY WITH AN ORAL CAVITY TUMOR MODEL (MEETING ABSTRACT).

Grigsby P, Maruyama Y
University of Kentucky Medical Center, Lexington, KY, 40536
Conference on Chemical Modification: Radiation and Cytotoxic Drugs, September 17-20, 1981, Key Biscayne, Florida. Committee for Radiation Oncology Studies 139 pp., 1981.

The purpose of this study was to investigate the use of combined WR-2721 and misonidazole in an in vivo model, the ORD (oral radiation death) syndrome. All experiments were performed using isogeneic Balb/c mice of ages seven to nine wk. The radiation source was a Picker V-9 cobalt-60 teletherapy unit. The mice were placed in a specially constructed jig during irradiation which eliminated head movement. Only the head and neck were exposed to the direct beam while the remainder of the body was shielded by lead blocks. WR-2721 and misonidazole were dissolved in distilled water and isotonic saline respectively, immediately prior to injection. All injections were performed ip thirty min prior to irradiation. When WR-2721 and misonidazole were used in combination, they were injected simultaneously. ORD occurs by day 10 and follows a normal distribution. The combined toxicity of WR-2721 and misonidazole was determined by isobolographic analysis. The toxic LD50/30 curve was found to be linear along a unique line defining the additive toxicity of the two drugs. The DMF (dose modification factor) for the same dose of WR-2721 plus a given dose of misonidazole was found and varied relative to drug dose used. From our data we conclude that: 1) WR-2721 is an effective radioprotector for the ORD syndrome; 2) WR-2721 and misonidazole produce additive toxicity when injected simultaneously; and 3) The combination of WR-2721 and misonidazole can provide an overall protective response to the ORD syndrome with potential hypoxic tumor radiosensitization. The combination may therefore be useful for the radiotherapy of oral cavity cancers in man. (no Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

3. MANAGEMENT OF INVERTED PAPILLOMA OF THE NOSE AND PARANASAL SINUSES.

Myers EN, Schramm VL, Barnes EL
Dept. Otolaryngology, Eye and Ear Hosp., 230 Lothrop St., Pittsburgh, PA, 15213
Laryngoscope; 91(12):2071-2084 1981

Inverted papilloma of the nose and paranasal sinuses is a neoplastic growth of epithelium which inverts into the underlying stroma rather than proliferating outward from the surface. These neoplasms probably arise from the area of the lateral nasal wall. Inverted papilloma is characterized by its: (A) capacity to destroy; (B) tendency to recur; and (C) association with malignancy. During the past decade, we have come to understand better the histologic, biologic, and anatomic features of this tumor. More studies focusing on inverted papilloma have been published in recent yr, and the authors of these reports have advocated more aggressive surgical procedures in the management of this tumor. The application of the technique of lateral rhinotomy and en bloc excision of the lateral nasal wall has dramatically decreased the recurrence rate while providing the patient with quite acceptable cosmetic and functional results. The surgical approach to inverted papilloma associated with squamous cell carcinoma varies with the extent of disease; but a good cure rate, especially with localized tumors, may be achieved with aggressive surgery combined with radiation therapy in these cases. We present a series of 19 patients with inverted papilloma. In 6 of these 19 patients, squamous cell carcinoma was associated with the inverted papilloma; 13 of the patients with inverted papilloma and 3 of the patients with an associated malignancy underwent lateral rhinotomy with en bloc excision of the lateral nasal wall. The tumor did not recur in these patients. The rationale for this surgery, as well as the details of these patient's case histories, form the basis of this report. (Autho r abstract) (15 Refs)

4. NEOPLASMS FOLLOWING CHILDHOOD RADIUM IRRADIATION OF THE NASOPHARYNX.

Sandler DP, Comstock GW, Matanoski GM
Biometry Branch, Epidemiology Program, Natl. Inst. Environmental Health Sciences, P.O. Box 12233, Research Triangle Park, NC, 27709
JNCI; 68(1):3-8 1982

Eighteen to 35 years after admission to a clinic for the prevention of deafness, no increased overall cancer risk could be detected among 904 persons who had been treated with nasopharyngeal radium irradiation when compared with the risk among 2,021 persons who were either treated surgically or not treated at all, although there were differences at specific sites. An increased risk of developing both benign and malignant head and neck tumors was found among irradiated persons. Whereas no one head and neck site showed a statistically significant excess, a slight excess of brain cancer occurred 15-20 years after radium treatment. No increase in thyroid cancer risk was observed, a result possibly attributable to the low radiation doses to this organ and the relatively small population irradiated. (Author abstract) (27 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

5. SPLIT-COURSE RADIOTHERAPY OF CANCER OF THE LARYNX: TEN YEAR RESULTS OF A RANDOMIZED STUDY (MEETING ABSTRACT).

Holsti LR, Salmo M
Department of Radiotherapy and Oncology, University Central Hospital, Helsinki, Finland
UICC Conference on Clinical Oncology, October 28-31, 1981, Lausanne, Switzerland. International Union Against Cancer 131 pp., 1981.

A randomized clinical trial was performed from 1965 to 1967 to compare the results of split-course treatment with those of continuous daily fractionated treatment. Forty-seven patients were treated with split-course therapy and 37 with conventional radiotherapy. The av treatment was 5000 rad in 5 wk in the continuous treated group and 5500 rad in 7 wk in the split-course group. The mean rest interval was two wk. Glottic and supraglottic carcinomas of all stages were accepted to the trial. The 5 and 10 yr survival rates of stage I and II were somewhat better in split-course group (70% and 53% respectively) than in the continuous treated group (56% and 40%). In stage III and IV the survival rates were similar (24% and 12-14%). No severe complications were observed in either group. An isoeffective curve was calculated by the method of least squares for ten yr survivors and for recurred cases in stage I and II. It was used to estimate the additional dose needed in split-course treatment to achieve the same effect as with continuous treatment. This recovered dose/day varied between 28 and 33 rad. The corresponding recovered dose calculated by Ellis equation was 15 rad/day. (no Refs)

6. LEVAMISOLE IN THE TREATMENT OF JUVENILE LARYNGEAL PAPILLOMATOSIS.

Schouten TJ, Bos JH, Bos CE, Van der Pot PJ, Van den Broek P
Div. Pediatric Oncology, Dept. Pediatrics, Juliana Children's Hosp., 's Gravenhage, The Netherlands
Int J Pediatr Otorhinolaryngol; 3(4):365-369 1981

Use of levamisole (2.5 mg/kg, po, 1-2x/wk) in the treatment of three patients with juvenile laryngeal papillomatosis is described. Levamisole treatment in the two patients in whom advanced disease necessitated tracheostomy produced no endoscopic evidence of improvement during 8-9 mo of treatment. The third patient was a 2-yr-old boy in whom papillomatosis was restricted to the larynx. The patient had undergone 13 previous surgical interventions followed by topical 5-fluorouracil treatment; tracheostomy was avoided by using nasotracheal intubation for approx 1 wk following each surgical procedure. After 22 mo of treatment with levamisole and homeopathic drugs, the vocal cords showed no papillomatous growth and were only slightly thickened. The last surgical intervention had taken place 12 mo previously. The results do not appear to justify a formal clinical trial on the effect of levamisole in juvenile laryngeal papillomatosis. (14 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

7. A NEW IN VITRO ASSAY FOR HUMAN THYROID STIMULATOR USING CULTURED THYROID CELLS: EFFECT OF SODIUM CHLORIDE ON ADENOSINE 3',5'-MONOPHOSPHATE INCREASE.

Kasagi K, Konishi J, Iida Y, Ikekubo K, Mori T, Kuma K, Torizuka K
(c/o Konishi) Dept. Nuclear Medicine, Kyoto Univ. Sch. Medicine, Shogoin, Sakyo-ku, Kyoto 606, Japan
J Clin Endocrinol Metab; 54(1):108-114 1982

A new sensitive in vitro assay for human thyroid stimulator (HTS) was developed using human thyroid adenoma cells in monolayer culture. After being cultured for 2 days, the cells were incubated in 0.3 ml Hank's solution without 0.8% NaCl (medium 1) and with thyroid stimulator (bovine TSH or 3 mg patient serum immunoglobulin G) at 37 C for 2 hr. The cAMP generated in the cells and the medium during the incubation was measured by RIA. The assay was sensitive enough to elicit a 1.7-to 7.9-fold increase in cAMP at a TSH concentration of 10 uU/ml. HTS was detected in 33 (82.5%) of the 40 patients with untreated Graves' disease using this assay system. In Hank's solution (medium 2), however, HTS was detected in only 5 (23.8%) of the 21 patients with untreated Graves' disease. cAMP increment upon stimulation by either TSH or HTS in medium 1 was larger than that in medium 2, and the difference in the response to HTS using the two media was much greater than that in the response to TSH. Therefore, all HTS-immunoglobulin G studied showed higher activity using medium 1 than using medium 2 when expressed as bovine TSH equivalent. Analysis by the Lineweaver-Burk plot of dose-response curves of the effect of TSH and HTS stimulation on cAMP increment showed an increase in the Km upon the addition of NaCl to the medium. A similar inhibitory effect of NaCl (150 mM) was also observed in the assay system of human thyroid adenylate cyclase stimulator using crude plasma membrane fractions. In summary: (1) an assay for HTS measuring cAMP production in cultured thyroid adenoma cells was developed, and the assay using low NaCl medium was found to be the most sensitive; and (2) the inhibitory effect of NaCl on the response to HTS was much greater than that on the response to TSH. These data suggest different behaviors of these two stimulators at their receptor sites. (Author abstract) (26 Refs)

8. A RADICAL OPERATION WITH RECONSTRUCTION OF TRACHEA IN CASES OF THYROID CARCINOMA (MEETING ABSTRACT).

Nakao K, Sakamoto T, Miyata M, Monden Y, Kawashima Y, Maeda M
First Department of Surgery, Osaka University Medical School, Osaka, Japan
UICC Conference on Clinical Oncology, October 28-31, 1981, Lausanne, Switzerland. International Union Against Cancer 131 pp., 1981.

Invasion of the thyroid carcinoma into the trachea is prognostically the most serious and the most directly related cause of death. Four of 14 deaths among our series of 103 patients with well differentiated carcinoma of thyroid included such patients. Two other patients died of suffocation before surgery. Therefore plastic surgery for the trachea should be considered for cases of tracheal invasion. This study is concerned with 9 patients with well differentiated thyroid carcinoma invasive to the trachea in whom we performed a hemithyroidectomy inclusively an isthmus with either modified or radical neck dissection and resection of the trachea. Five of the 9 patients had hemoptysis and tracheal invasion was evident by endoscopy before the surgery. In another 4 patients the invasion was diagnosed preoperatively by computed tomography or by intraoperative biopsy. Because of severe stenosis of the trachea we used jet injection with thin intubation-tube in 2 patients. Futhermore in consideration of failure to intubation extracorporeal circulation was prepared as stand-by in 2 patients. After circumferential resection of the trachea we performed a end-to-end anastomosis in 4, anastomosis between ring cartilage and trachea in 4 and between thyroid cartilage and trachea in one patient. Seven of 9 patients are alive and well without recurrence from 3 to 36 mo postoperatively. One patient had local recurrence 18 mo postoperatively and died of bleeding. One died of postoperative complicated massive gastrointestinal bleeding. We have obtained good results by the resection of trachea with adequate neck dissection in patients with tracheal invasion. (no Refs)

9. OXYPHIL TUMORS OF THE THYROID: FOLLOW-UP OF 42 SURGICAL CASES.

Bondeson L, Bondeson AG, Ljungberg O, Tibblin S
(c/o A. G. Bondeson) Dept. Surgery, General Hosp., S-214 01 Malmo, Sweden
Ann Surg; 194(6):677-680 1981

Histopathologic and clinical follow-up data on 42 patients observed 2-20 years after operations for oxyphil neoplasms of the thyroid are presented. In eight patients histologic signs of malignancy were found but only two patients showed a clinically malignant course with development of distant metastases. The results do not indicate that oxyphil thyroid neoplasms are especially prone to assume a malignant course with the mode of treatment applied. Our policy is to remove any differentiated epithelial thyroid neoplasm with at least lobectomy. Total thyroidectomy is reserved for cases with capsular penetration, blood vessel invasion and/or metastases. (Author abstract) (10 Refs)

10. FAMILIAL MEDULLARY THYROID CARCINOMA AND C CELL HYPERPLASIA.

Wolfe HJ, Delellis RA
Dept. Pathology, New England Medical Center, 171 Harrison Ave., Boston, MA, 02111
Clin Endocrinol Metab; 10(2):351-365 1981

Normal C cells are clearly identified by their positive calcitonin test when calcitonin antisera and immunofluorescent or immunoperoxidase techniques are used. Medullary thyroid carcinoma are rich in calcitonin. In a study of the J kindred, including four generations and 83 family members, 12 members had calcitonin levels which could be elevated to greater than 2.0 nanog/ml upon stimulation and had bilateral medullary thyroid carcinoma located in the middle third of the lateral lobes--the site of greatest C cell density in normal glands. None of the patients had exhibited physical abnormalities before total thyroidectomy was undertaken. In a 9-yr study involving the J kindred, annual calcium gluconate infusion or pentagastrin injection used to detect calcitonin secretory reserve yielded a total of 21 patients in the group who converted from normal to abnormal levels. Except for one false negative, all glands resected from these patients showed bilateral C cell abnormalities ranging from hyperplasia to microscopic carcinoma. A hypothesis for familial medullary thyroid carcinoma proposes an increase in number and size of C cells with progression until C cell hyperplasia breaks through the basement membrane of the thyroid interstitium. Calcitonin is an efficient marker for tumor cells and has allowed early detection of carcinomas previously detectable only after metastasis. C cell hyperplasia is thought to be a manifestation of a mutational event that is hereditary; a hypothetical second mutational event leads to neoplasia. All members of a family in which familial disposition to medullary thyroid carcinoma has been established by histopathological detection of C cell hyperplasia should be screened annually for abnormalities of calcitonin secretory response, and for abnormalities of adrenal medullary and parathyroid functioning. Surgery should follow when tests are positive. (46 Refs)

11. FAST NEUTRONS IN THE TREATMENT OF SALIVARY GLAND TUMORS.

Kaul R, Hendrickson F, Cohen L, Rosenberg I, Ten Haken R, Awschalom M, Mansell J
Dept. Radiation Oncology, Michael Reese Hosp. and Medical Center, 29th St. and Ellis Ave., Chicago, IL, 60616
Int J Radiat Oncol Biol Phys; 7(12):1667-1671 1981

Results of fast neutron irradiation (NI) in 22 patients in an ongoing Phase II study are reported. Median patient age was 55 yr (range 24-79 yr). Tumors originated in a major salivary gland in 17 cases (including 15 in parotid and 2 in submandibular glands) and in a minor salivary gland in 5 cases. All tumors were carcinomas except one mixed type. Treatment was planned on an individual basis. NI delivered 24.0 Gray over a period of 6 wk to an area including at least a 1 cm margin around the tumor. Four patients received an initial wide-field irradiation of 45.0 Gray with photons followed by a booster dose of 7.5 Gray in five fractions over 2-3 wk. Of seven patients receiving NI as primary therapy, one showed recurrence in the target volume and pulmonary metastases (PM), one patient developed only PM, and five patients were alive and tumor-free after 1-3 yr. Of three patients with postoperative residual disease who received NI, one died of persisting disease after 3 mo, and two were alive and tumor-free after 2 yr. Of six patients receiving NI after two to nine surgical excisions, five were alive and tumor-free after 1-3 yr and one patient with a mixed-type tumor was alive with 20% regression of a pharyngeal mass and disappearance of neck mass after 27 mo. Of three patients treated with NI after surgery and conventional irradiation, all died within 1 yr of treatment. Of four patients receiving NI boosting after photon irradiation, only one was alive and tumor-free after 3 yr. Results suggest improved local control of salivary tumors with NI. (15 Refs)

12. NECROTIZING SIALOMETAPLASIA--A LESION OF MINOR SALIVARY GLANDS THAT MIMICS MALIGNANCIES.

McCullough DT, Rye LA, Redman RS
(c/o Redman) Dental Service (160), Veterans Admin. Medical Center, 50 Irving St., NW, Washington, DC, 20422
Ann Plast Surg; 7(6):480-483 1981

Necrotizing sialometaplasia, a benign, self-limited lesion of unknown etiology which presents as a variably painful, sharply punched out, 1-to 3-cm unilateral ulcer of the palate, is discussed. Microscopic characteristics include necrosis of the minor salivary glands with preservation of lobular architecture and pseudocarcinomatous hyperplasia of surrounding surface epithelium, often associated with squamous metaplasia of the gland ducts. These features may cause erroneous diagnosis of mucoepidermoid carcinoma or of squamous cell carcinoma. (12 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

13. LACRIMAL GLAND TUMORS: THE ROLE OF CT AND CONVENTIONAL RADIOLOGY.

Lloyd GA
Moorfields Eye Hosp., City Road, London EC1V 2PD, England
Br J Radiol; 54(648):1034-1038 1981

The x-ray features of 66 lacrimal gland tumors, comprising 32 benign pleomorphic adenomas, 24 carcinomas and 10 lymphomas, are reviewed. The role of radiology in the management of these patients is discussed. Although lacrimal gland tumors present no unique radiological appearances, the diagnosis and pathological type may be suggested by a combination of conventional radiography and CT scan. It is important to distinguish the pleomorphic adenoma clinically and radiologically from other lesions of the lacrimal gland, since this tumor must be excised in toto. Incisional biopsy or partial removal may result in a disastrous recurrence with seeding into bone and soft tissue. X-ray signs of malignancy in lacrimal gland tumors include invasion and sclerosis of the adjacent bone of the lacrimal fossa, calcification in the tumor and extension outside the lacrimal gland area shown on CT scan. The pre-operative diagnosis of malignancy was improved from 42% to 73% by CT. Indentation or enlargement of the lacrimal fossa was seen in 80% of benign pleomorphic adenomas. Although nonspecific, this sign in a patient with a painless lacrimal gland swelling of over 12 mo duration, without radiological evidence of malignancy, is strongly indicative of a benign tumor. (Author abstract) (4 Refs)

14. UVEAL MELANOMA IN CHILDREN AND ADOLESCENTS.

Barr CC, McLean IW, Zimmerman LE
(c/o McLean) Dept. Ophthalmic Pathology, Armed Forces Inst. Pathology, Washington, DC, 20306
Arch Ophthalmol; 99(12):2133-2136 1981

Five-year survival data were available in 78 cases originally classified as uveal melanomas in patients less than 20 years old. Forty-two were malignant melanomas arising from the choroid and/or ciliary body; 13 patients from this group died of metastatic disease. Factors that significantly correlated with fatality were a red, painful eye, extraocular extension at enucleation, basal tumor diameter greater than 10 mm, increased mitotic activity, and tumor necrosis. There were 36 iridic tumors; nine were reclassified as nevi. Of the 27 patients with iridic melanomas, only four died of metastases. The predominant factors relating to fatal outcome were glaucoma, extension of tumor into the ciliary body, diffuse growth, deep angle invasion, scleral invasion by tumor cells, and increased mitotic activity. Except for their relative rarity, uveal melanomas in children and adolescents did not differ significantly from their counterparts in adults. (Author abstract) (28 Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

15. FACIAL BONE SCINTIGRAPHY. VII. DIAGNOSIS OF MALIGNANT LESIONS IN THE MANDIBLE.

Bergstedt HF, Lind MG, Silfversward C
Dept. Diagnostic Radiology, Otolaryngology and Tumor Pathology, Karolinska Sjukhuset, S-10401 Stockholm, Sweden
Acta Radiol [Diagn] (Stockh); 22(4):485-493 1981

Fifty-four patients were examined clinically, radiographically and scintigraphically with respect to mandible bone involvement by oral carcinoma. Sixteen resected mandibular specimens were available for microscopic examination and the results were correlated to the clinical, scintigraphic and radiographic results. Clinical assessment overestimated and radiography underestimated oral carcinoma involvement of the mandible; scintigraphy was more accurate than was clinical assessment or radiography. Combination of clinical examination with both conventional radiography and bone scintigraphy is recommended for optimum diagnosis of mandible bone involvement by oral carcinoma. (Author abstract) (44 Refs)

16. OROFACIAL SYNOVIAL SARCOMA. A CLINICOPATHOLOGIC STUDY OF 11 CASES (MEETING ABSTRACT).

Shmookler BM
Soft Tissue Pathology Branch, Armed Forces Institute of Pathology, Washington, DC, 20306
Am J Clin Pathol; 76(3):351 1981

A rare group of 11 synovial sarcomas restricted to the orofacial region was analyzed. The series comprised nine males (82%) and two females (18%) whose ages ranged from 16-49 yr (median 34). Topographically, two subsets were delineated, a more common facial group with eight cases, all arising as gradually enlarging solitary tumors and three intraoral ones, two of which were polypoid and one, an exophytic tonsillar mass, presented with hemoptysis and stridor. Follow up data, obtained for nine patients (range 1.3-15 yr), disclosed 3 (33%) tumor-related deaths, all belonging to the facial group. Grossly, the firm, often lobulated tumors, infrequently appearing partially encapsulated, ranged, in greatest dimension, from 1.2 cm-5 (mean 3.8). Histologically, all the neoplasms revealed characteristic biphasic features, predominantly fibrosarcomatous in one, but, more typically, showing clefts and/or pseudoacinar spaces. A focal pericytoma-like pattern distinguished three lesions; two others revealed a distinctive tumoral calcification. Differential diagnosis, depending on the proportion of the biphasic components, ranged from spindle cell mesenchymal neoplasms to various adenocarcinomas including those arising in mixed tumors of salivary gland. (no Refs)

17. PROGNOSTIC FACTORS FOR MELANOMA PATIENTS WITH LESIONS 0.76-1.69 MM IN THICKNESS: AN APPRAISAL OF 'THIN' LEVEL IV LESIONS.

Day CL, Mihm MC, Sober AJ, Harris MN, Kopf AW, Fitzpatrick TB, Lew RA, Harrist TJ, Golomb FM, Postel A, Hennessey P, Gumport SL, Raker JW, Malt RA, Cosimi AB, Wood WC, Roses DF, Gorstein F, Rigel D, Friedman RJ, Mintzis MM

(c/o Sober) Dept. Dermatology, Massachusette General Hosp., Boston, MA, 02114

Ann Surg; 195(1):30-34 1982

Fourteen variables were tested for their prognostic usefulness in 203 patients with clinical Stage I melanoma and primary tumors 0.76-1.69 mm thick. Only two variables, primary tumor location and level of invasion, were useful in predicting death from melanoma for these patients. Of the 12 deaths from melanoma, 11 occurred in patients with primary tumors located on the upper back, posterior arm, posterior neck, and posterior scalp (= BANS). There has been only one death from melanoma in 136 patients with melanoma located at other sites (11/67 vs 1/136, p less than 0.0001 Fisher's Exact Test). Of the 67 BANS patients, 51 had Level II or Level III lesions and 5 (10%) died of melanoma. This compares with six deaths from melanoma in 16 patients (37.5%) with Level IV BANS lesions (5/51 vs 6/16, p = 0.01 FIsher Exact Test). The relatively high incidence of both melanoma deaths and regional node metastases for the BANS group merits consideration for testing the efficacy of elective regional node dissection for these patients. (Author abstract) (25 Refs)

18. A MULTIVARIATE ANALYSIS OF PROGNOSTIC FACTORS FOR MELANOMA PATIENTS WITH LESIONS GREATER THAN OR EQUAL TO 3.65 MM IN THICKNESS. THE IMPORTANCE OF REVEALING ALTERNATIVE COX MODELS.

Day CL, Lew RA, Mihm MC, Sober AJ, Harris MN, Kopf AW, Fitzpatrick TB, Harrist TJ, Golomb FM, Postel A, Hennessey P, Gumport SL, Raker JW, Malt RA, Cosimi AB, Wood WC, Roses DF, Gorstein F, Rigel D, Friedman RJ, Mintzis MM, Grier RW

(c/o Sober) Dept. Dermatology, Massachusetts General Hosp., Boston, MA, 02114

Ann Surg; 195(1):44-49 1982

Fourteen prognostic factors were examined in 79 patients with clinical Stage I melanoma greater than or equal to 3.65 mm in thickness. All nine patients with melanoma of the hands or feet died of melanoma. A Cox proportional hazards (multivariate) analysis of the remaining 70 patients showed that a combination of the following four variables best predicted bony or visceral metastases: (1) a nearly absent or minimal lymphocyte response at the base of tumor, (2) histologic type other than superficial spreading melanoma, (3) location on the trunk, and (4) positive nodes or no initial node dissection. Ulceration and/or ulceration width were not useful in predicting outcome either singly or in combination with other variables. Patients with negative lymph nodes and primary tumors of the trunk, hands, and feet did not do better than patients with positive nodes at those sites. Conversely, none of 16 patients with negative lymph nodes and extremity melanomas (excluding the hands and feet) or head and neck melanomas developed visceral or bony metastases (ie, 5-yr disease-free survival rate 100%). (Author abstract) (26 Refs)

19. RADIOTHERAPY IN NONLENTIGINOUS MELANOMA OF THE HEAD AND NECK.

Harwood AR, Dancuart F, Fitzpatrick PJ, Brown T

Dept. Radiation Oncology, Princess Margaret Hosp., 500 Sherbourne St., Toronto, Ontario M4X 1K9, Canada

Cancer; 48(12):2599-2605 1981

Thirty-seven patients with superficial spreading or nodular melanoma of the head and neck treated with irradiation are reviewed. Twenty-one patients were referred within 3 mo of surgery. Six had an incisional biopsy followed by postoperative irradiation, four were locally controlled (1 dying of metastatic melanoma, 2 dying of intercurrent disease and 1 is alive and well), and two were not (both dead of melanoma). Fifteen patients had a local excisional biopsy (11 having tumor to the limits of the excision) followed by postoperative irradiation. Fourteen of the 15 had local control (3 had lymph node metastases and died, 3 died of distant metastases from melanoma, 7 are alive and well from 1-14 yr following treatment, and one is dead of intercurrent disease), and 1 had a local recurrence and subsequently died of metastatic melanoma. Sixteen patients were irradiated for local and/or regionally recurrent disease following unsuccessful surgery, and only two were successfully controlled by irradiation and are alive and well at 4 and 5 yr, respectively. Local control was 70% when a dose per fraction of greater than 400 rads was used, compared with 25% when a dose per fraction of less than 400 rads was used. It is concluded that nonlentiginous melanoma of the head and neck is not a radioresistant tumor and that local excision followed by high dose per fraction radiotherapy deserves further study in the management of melanomas of the head and neck. (Author abstract) (13 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

20. PROSPIDIN IN RECURRENT HEAD AND NECK CARCINOMA (MEETING ABSTRACT).

Grohn P, Heinonen E, Paavolainen M, Holsti LR, Palva T

Department of Radiotherapy and Oncology, Helsinki University Central Hospital, Helsinki, Finland

Third NCI-EORTC Symposium on New Drugs in Cancer Therapy, October 15-17, 1981, Brussels, Belgium European Organization for Research on Treatment of Cancer; :A73 1981

Prospidin, dichloride of N,N3-di(gamma-chlor-beta-oxypropy)-N1-N2 dispyrotripiperazinum, is a new anti-cancer agent developed in USSR. Its mode of action is of alkylating type, but it also inhibits the protein synthesis of various enzymes and hormones as well as glycolysis. Prospidin has a great degree of activity against many experimental tumors. It has been shown to be effective in the treatment of the squamous cell carcinoma of the larynx and hypo-pharynx, also some effect has been described on the cancer of tongue and esophagus, malignant lymphomas and melanoma. The metastases of these tumors seem to be more likely to react to prospidin than the primary tumors. Since 1979, 14 patients with recurrent laryngeal carcinoma, after failure to operation and radiotherapy, have been treated with three wk cycles of iv prospidin (15 daily doses of 200mg with a pause of 3-4 wk). Among the evaluable 11 patients, the following responses were noted: 4 partial responses (1,7,8 and 10 mo), 1 minimal response, 2 cases with stagnant disease and 4 patients with progressive disease. The side effects were mild. One patient had vertigo, 1 loss of appetite, 3 anorexia. No hematological side effects were seen. Prospidin was also tried in three cases with tongue cancer, two with lip cancer, two with nasopharyngeal cancer, one with esophageal cancer, one with squamous cell lung cancer, one with cylindroma and one with mixed tumor of parotid gland. Stagnant disease was seen in one case with lip carcinoma, one with nasopharyngeal carcinoma, cylindroma and lung cancer. The other patients showed a progressive disease. One of these patients had a mild leukopenia and another drowsiness. The primary results with prospidin in recurrent laryngeal carcinoma are quite promising. It has been shown to have a clear effect in 4/11 cases with previously treated tumors. No clear effect has been seen in 11 patients with 7 other types of malanomas. The drug is well tolerated. The duration of one course of treatment is long, three wk, however. (no Refs)

21. TREATMENT OF HEAD AND NECK (H AND N) TUMORS WITH THIAZOLIDINE-4-CARBOXYLIC ACID (THIOPROLINE): RESULTS OF A PHASE II STUDY (MEETING ABSTRACT).

Rosso R, Boccardo F, Barbieri A, Guarneri D, Canobbio L, Merlano M
Genoa, Italy
Third NCI-EORTC Symposium on New Drugs in Cancer Therapy, October 15-17, 1981, Brussels, Belgium European Organization for Research on Treatment of Cancer; :A95 1981

Thioproline has been found to be effective in advanced epidermoidal tumors, with no toxic effects. In particular, a 100% OR rate was reported in H and N tumors, giving the drug by continuous iv infusion or im administration. In light of these findings, a phase II trial in H and N epidermoid tumors was undertaken at our Institute. The sodium salt of Thioproline (40-60 mg/Kg daily) was diluted in 2000 ml of saline and then administered by continuous iv infusion for 5 consecutive days every 3 wk. Patients (pts) were considered evaluable for response after 3 therapy cycles (tcs). As of Feb 1981, 20 pts entered the study. Fifteen pts were fully evaluable for response and 50 tcs were assessable for toxicity. Five out of 6 pts without any prior treatment showed stable disease (SD) while 1 showed progressive disease (PD). Out of 9 pts with prior chemo- and/or radiotherapy, 1 showed a minor response (MR), 3SD and 5 PD. The pt who showed a MR, had completed radiotherapy 25 days before commencing the treatment with Thioproline. Thus it cannot be excluded that radiotherapy rather the Thioproline produced disease improvement. A serious neurotoxicity was encountered in 4 cases. One pt, aged 73 developed seizures and coma during the 1 st tc. Three pts developed confusion and frank psychosis with paranoid delusions in the course of therapy. Our preliminary results do not confirm Thioproline effectiveness in H and N tumors, and due to possible neurologic toxicity, further investigation with this drug is not warranted. (1 Ref)

22. KINETICALLY SCHEDULED COMBINATION OF CHEMOTHERAPY WITH RADIOTHERAPY IN LOCALLY ADVANCED OR RECURRENT HEAD AND NECK CANCER (MEETING ABSTRACT).

Boccardo F, Merlano M, Canobbio L, Guarneri D, Sertoli MR, Scarpati D, Rubagotti A, Rosso R
Istituto Scientifico per lo Studio e la Cura dei Tumori, Genoa, Italy
UICC Conference on Clinical Oncology, October 28-31, 1981, Lausanne, Switzerland. International Union Against Cancer 131 pp., 1981.

The results achieved with a kinetically scheduled combination of chemotherapy with radiotherapy (RT) in 20 consecutive evaluable patients (pts) with primarily inoperable or locally recurrent epidermoid head and neck cancer are reported. The schedule employed was the one originally reported by O'Connors, Clifford et al. The regimen was modified to allow a full ambulatory administration and consisted of a 3-drug combination (Vincristine 2mg iv, followed by Bleomycin 30mg im 6 hr later and Methotrexate 200mg iv 24 hr after Vincristine with folinic acid rescue started 24 hr following Methotrexate) alternated with Co60 Radiotherapy (2000 rads in 10 daily fractions). Both treatments were administered sequentially for a total for 3 pulses (total RT dosage : 6000 rads). Pts were evaluable for response according to UICC criteria after the completion of the third radiotherapeutic cycle, 15 out of 20 evaluable pts (75%) showed a complete (9) or a partial response (6). Two pts showed stable disease and 3 pts progressive disease. Three pts partially responding to treatment were rendered disease free after surgery. In particular 6/6 pts with basis tongue cancer showed to benefit from the treatment. Median duration response has not reached. Actuarial survival at 12 mo was of 71%; 2 pts, who had not died from cancer were considered too for survival analysis. Toxicity from combined chemotherapy and radiotherapy was generally mild and not superior to the toxicity related to each therapeutic modality as observed in our own experience. In conclusion this kinetically regimen proved highly effective and feasible due to mild toxicity and our results are comparable to those previously reported by O'Connors et al. (1 Ref)

23. INTRAARTERIAL CIS-PLATINUM IN HEAD AND NECK CANCER CONTROLLED CLINICAL TRIAL IN PHASES I AND II (MEETING ABSTRACT).

Galmarini F, Yoel J, Dominguez E

Municipal Hospital of Oncology, Buenos Aires, Argentina

UICC Conference on Clinical Oncology, October 28-31, 1981, Lausanne, Switzerland. International Union Against Cancer 131 pp., 1981.

Sixty-three patients with advanced head and neck cancer were treated with ia Cis-Platinum (Protocol 1006-OSITC) in order to determine the optimal and tolerable doses, both locally and systemically, as well as the administration rhythm. In the first instance 33 patients were treated in keeping with 3 different schemes, viz: 25 mg/m(2)/every 4 days, 40 mg/m(2)/7 days and 60 mg/m(2)/10 days. The results obtained have already been reported at the 6th Annual Meeting and published in the corresponding proceedings. In view of the excellent local and general tolerance it was decided to complete this study with two new schemes, viz: 75 mg/m(2)/10 days (D) and 100 mg/m(2)/21 days (E). Fifteen patients were treated with each scheme. Two patients (13.3%) in Scheme D registered a complete remission (CR) while 9 (60%) had a remission over 50% (73.3% Responses). With Scheme E, 5 patients (33.3%) registered CR while 8 (53.3%) had a remission exceeding 50% (86.6% Responses). No instances were registered of local toxicity, while systemic reactions were minimal. In 50% of the patients the histological findings turned negative in the well-vascularized areas, while only in 9% of the poorly vascularized ones. It was concluded that Cis-Platinum is a highly active drug for head and neck cancer treatment. No signs of local toxicity were ascertained, this being of significant value when compared with the other drugs so far administered in before surgery and/or radiation therapy. patients and perfectly manageable with the descalation of cytoxan and antibiotics. It looks superior to any previously published regimen including 3 to 6 drugs and saves major drugs in case of late failure. Explanations in terms of resistance and pharmacokinetics will be discussed. (1 Ref)

24. THE VALUE OF ADJUVANT MISONIDAZOLE IN THE DEFINITIVE IRRADIATION OF ADVANCED HEAD AND NECK SQUAMOUS CANCER: AN RTOG PILOT STUDY (78-02).

Fazekas JT, Goodman RL, McLean CJ

Dept. Radiation Therapy and Nuclear Medicine, Thomas Jefferson Univ. Hosp., Philadelphia, PA, 19107

Int J Radiat Oncol Biol Phys; 7(12):1703-1708 1981

Local tumor response and neurotoxic effects of misonidazole (2-nitro-1-imidazole: MA) were determined in a Phase II nonrandomized study. Fifty patients (39 men, 11 women, 31-78 yr old, av age 56 yr) with squamous cancers of the oral cavity, oropharynx, supraglottic larynx, or hypopharynx received MA as an adjunct to radiotherapy (RT). MA (2.5 g/square meter, reduced to 2.0 g/square meter after analysis of the first 30 patients) was administered, followed by RT (250 rads 4 hr after MA dose and 210 rads 4 hr after the first RT dose). Three subsequent RT doses of 180 rads were given, for a weekly dose of 1,000 rads. Forty-six patients were evaluated, of whom 41 completed at least three courses of MA, and 36 completed the minimum RT and at least three courses of MA. Complete disappearance of tumor was achieved in 50% of all patients and in 67% of those completing therapy. The combined partial and complete response rate was 89% among those completing therapy. No clear correlation was found between serum MA or total MA dose and toxicity or response, except in a comparison of patients with complete response and those with no response. Toxicity was limited to the nervous system; one third of patients developed mild or moderate peripheral neuropathy and an equal number developed nausea and/or vomiting after po MA administration. Of 36 patients completing therapy, 17 were alive and free of disease at 9-24 mo, 10 were alive with disease, 3 died of cancer, 3 died of other causes, and 3 are of unknown status. Results warrant a Phase III study. (17 Refs)

25. INTRAARTERIAL INFUSION CHEMOTHERAPY FOR HEAD AND NECK CANCER USING A TOTALLY IMPLANTABLE INFUSION PUMP.

Baker SR, Wheeler RH, Ensminger WD, Niederhuber JE

Dept. Otorhinolaryngology, Univ. Michigan, 1405 East Ann St., Ann Arbor, MI, 48109

Head Neck Surg; 4(2):118-124 1981

A percutaneously refillable, totally implantable infusion pump (IIP) is described. Advantages of IIP over conventional methods of ia infusion are discussed. IIP use and patient follow-up are considered. IIP for administration of dichloromethotrexate (dMTX: 2-10 mg/square meter/day) to four patients with unresectable head and neck cancer (maxillary squamous cell carcinoma, maxillary or temporal bone basal cell carcinoma, ethmoid malignant mixed tumor) resulted in only mild stomatitis in Patient 1 and mild stomatitis, diarrhea, and myelosuppression in Patient 2, after 38 and 20 wk of infusion, respectively. In Patients 3 and 4, no drug toxicity was reported after 4 wk of infusion. IIP replacement was required in Patient 1 after 12 wk due to crystal formation in the lumen of the outlet catheter. Patients 1 and 2 exhibited reduction of tumor mass with dMTX therapy. In patient 1 tumor progression after 8 mo of infusion therapy was treated by ia infusion of fluorodeoxyuridine (0.1-0.2 mg/square meter/day) and a bolus of cis-platinum (50 mg/square meter); marked tumor reduction complicated by severe stomatitis and skin ulceration were observed with this regimen. Except for mild nausea and vomiting following cis-platinum infusion, toxicity was solely regional. Results indicated the practicality of continuous, long-term, outpatient ia infusion chemotherapy with IIP for the treatment of head and neck cancer. (19 Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

26. ANAPLASTIC CARCINOMA IN THE BUCCAL POUCHES OF HAMSTERS AS A MODEL OF ORAL CANCER.

Meng CL, Albright J, Shklar G

Dept. Oral Medicine and Oral Pathology, Harvard Sch. Dental Medicine, Boston, MA

J Dermatol Surg Oncol; 7(12):1011-1017 1981

An experimental model of oral cancer was developed. Adult Syrian hamsters were subjected to applications of a 0.5% soln of 7,12-dimethylbenzanthracene (DMBA) to the mucosa of the buccal pouch. The DMBA-induced epidermoid carcinomas were transplanted to the abdominal cavities of newborn hamsters. Abdominal tumors were detected 8 wk after transplantation. The first-generation abdominal tumors were subjected to serial replantation in the abdominal cavities and buccal pouches of immunosuppressed or non-immunosuppressed hamsters. The original DMBA-induced tumors of the oral mucosa had histology of well-differentiated carcinoma. After serial transplantation, tumors became anaplastic. The anaplastic epidermoid carcinomas could be replanted to the buccal pouches of both immunosuppressed and non-immunosuppressed hamsters. No metastatic spread from the tumors in buccal pouches was found. (13 Refs)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—361-847/118

AUTHOR INDEX WITH CITATION NUMBERS

Albright J 26
Awschalom M 11
Baker SR 25
Barbieri A 21
Barnes EL 3
Barr CC 14
Bergstedt HF 15
Boccardo F 21
Boccardo F 22
Bondeson AG 9
Bondeson L 9
Bos CE 6
Bos JH 6
Brown T 19
Canobbio L 21
Canobbio L 22
Cohen L 11
Comstock GW 4
Cosimi AB 17
Cosimi AB 18
Costa A 1
Dancuart F 19
Day CL 17
Day CL 18
Delellis RA 10
Dominguez E 23
Ensminger WD 25
Fazekas JT 24
Fitzpatrick PJ 19
Fitzpatrick TB 17
Fitzpatrick TB 18
Friedman RJ 17
Friedman RJ 18
Galmarini F 23
Golomb FM 17
Golomb FM 18
Goodman RL 24
Gorstein F 17
Gorstein F 18
Grier RW 18
Grigsby P 2
Grohn P 20
Guarneri D 21
Guarneri D 22
Gumport SL 17
Gumport SL 18
Harris MN 17
Harris MN 18
Harrist TJ 17
Harrist TJ 18
Harwood AR 19
Heinonen E 20
Hendrickson F 11
Hennessey P 17
Hennessey P 18
Holsti LR 20
Holsti LR 5
Iida Y 7
Ikekubo K 7
Kasagi K 7
Kaul R 11
Kawashima Y 8
Konishi J 7
Kopf AW 17
Kopf AW 18
Kuma K 7
Lew RA 17
Lew RA 18
Lind MG 15
Ljungberg O 9
Lloyd GA 13
Maeda M 8
Malt RA 17
Malt RA 18
Mansell J 11
Maruyama Y 2
Matanoski GM 4
McCullough DT 12
McLean CJ 24
McLean IW 14
Meng CL 26
Merlano M 21
Merlano M 22
Mihm MC 17
Mihm MC 18
Mintzis MM 17
Mintzis MM 18
Miyata M 8
Molinari R 1
Monden Y 8
Mori T 7
Myers EN 3
Nakao K 8
Niederhuber JE 25
Paavolainen M 20
Palva T 20
Postel A 17
Postel A 18
Raker JW 17
Raker JW 18
Redman RS 12
Rigel D 17
Rigel D 18
Rosenberg I 11
Roses DF 17
Roses DF 18
Rosso R 21
Rosso R 22
Rubagotti A 22
Rye LA 12
Sakamoto T 8
Salmo M 5
Sandler DP 4
Scarpati D 22
Schouten TJ 6
Schramm VL 3
Sertoli MR 22
Shklar G 26
Shmookler BM 16
Silfversward C 15
Silvestrini R 1
Sober AJ 17
Sober AJ 18
Ten Haken R 11
Tibblin S 9
Torizuka K 7
Van den Broek P 6
Van der Pot PJ 6
Wheeler RH 25
Wolfe HJ 10
Wood WC 17
Wood WC 18
Yoel J 23
Zimmerman LE 14

VIDEOTAPES

ON CURRENT TOPICS IN CANCER RESEARCH

A pilot project of the International Cancer Research Data Bank (ICRDB) Program of the National Cancer Institute

Three series are available . . .

THE RELATION OF CARCINOGEN ACTION ON DNA TO CELL TRANSFORMATION

PETER MAGEE **Fels Research Institute**	***Keynote Address***	**#VK01** **28 min.**
JAMES K. SELKIRK **Oak Ridge National Laboratories**	***Metabolic Activation and Macromolecular Binding of Chemical Carcinogens***	**#VK02** **51 min.**
PHILIP C. HANAWALT **Stanford University**	***Cellular Responses to Damaged DNA***	**#VK03** **54 min.**
CHARLES HEIDELBERGER **University of Southern California**	***Mutagenesis and Oncogenic Transformation of Mouse Embryo Cells***	**#VK04** **54 min.**
FRED RAPP **Milton S. Hershey Medical Center**	***The Interaction of Herpesviruses and Host Cells Leading to Latency or Transformation***	**#VK05** **52 min.**
	Panel Discussion	**#VK06** **31 min.**

MECHANISMS OF METASTASIS

ISAIAH FIDLER **Frederick Cancer Research Center**	***The Heterogeneous Nature of Cancer Metastasis and Implications for Therapy***	**#VB01** **47 min.**
GEORGE POSTE **Smith, Kline and French Laboratories**	***Phenotypic Analysis of Metastatic Cell Populations***	**#VB02** **42 min.**
LANCE LIOTTA **National Cancer Institute**	***Tumor Cell Invasion of Basement Membranes and Extracellular Matrices***	**#VB03** **33 min.**
EVERETT SUGARBAKER **Miami Cancer Institute**	***Some Clinical Characteristics of Metastasis in Man***	**#VB04** **41 min.**

AUTOMATED CYTOLOGY

Part One: Principles and Techniques	**#VB05** **56 min.**
Part Two: Biological Applications	**#VB06** **52 min.**

VIDEOTAPES ON CURRENT TOPICS IN CANCER RESEARCH are in the 3/4" U-matic format and can be played on video equipment which accepts the NTSC standard (the standard for videotapes produced in the U.S.).

The videotapes are available on a loan basis. If you would like to schedule viewing for your group, or for more information, please write to:

Cancer Information Dissemination and Analysis Center (CIDAC)
Franklin Research Center
20th and Benjamin Franklin Parkway
Philadelphia, PA 19103

Please specify three choices for viewing dates, and the tapes desired.

CANCER
LINE

More Than Just A Fancy Name

Mention CANCERLINE to your librarian and the world's foremost collection of cancer information is at your disposal. With the help of this computerized data system, you can obtain information on the following:

Cancer Literature

The literature date base, **CANCERLIT**, allows you to survey more than 3,000 biomedical journals for information on your topic of interest. Your search will also alert you to meeting proceedings, monographs, and books published in that area. Informative abstracts averaging 200 words are provided with each citation;

Current Cancer Research

The data base **CANCERPROJ** allows you to retrieve descriptions of current work in any cancer research area. The descriptions, which state research objective, methodology, and experimental results, are supplied for projects underway in 77 countries around the world.

Cancer Therapy Protocols

The **CLINPROT** section of CANCERLINE is designed primarily for clinicians. It provides detailed summaries of currently active experimental protocols for any cancer site, agent, or type.

Ask your biomedical librarian about CANCERLINE.
CANCERLINE is sponsored by the International Cancer Research Data Bank—a program of the National Cancer Institute.

CANCERLINE

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS
Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/06

NCI/ICRDB/CT11 82/06

PB82-938506

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/06

JUNE, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY

JUN 30 1982

U. S. GOVT. PUBS.
DEPOSITORY

SPECIAL ANNOUNCEMENTS FROM THE ICRDB PROGRAM WILL PERIODICALLY APPEAR AS FILLER PAGES IN THE BACK OF YOUR CANCERGRAMS. WATCH FOR THEM!

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS.......... 1-6
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS.......... 7-8
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS.......... 9-13
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS.......... 14-17
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS.......... 18-22
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS.......... 23
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES...... 24-26
- PROGRESS IN RECONSTRUCTION AND REHABILITATION.......... 27
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS.......... 28

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

ORAL CAVITY AND OROPHARYNX TUMORS

1. ULTRASONIC INVESTIGATIONS OF TUMORS IN THE AREA OF THE ORAL FLOOR AND TONGUE AND OF CERVICAL LYMPH NODE METASTASES CONFIRMED BY COMPUTER TOMOGRAPHY.

Hauenstein H, Rothe F, Steinkamp B
Klinik fur Kiefer- und Gesichtschirurgie, Hufelandstrasse 55, D-4300 Essen, W. Germany
Dtsch Zahnaerztl Z; 36(11):746-751 1981

Thirty-four patients with T-3 tumors of the tongue and floor of the mouth and lymph node metastases diagnosed by palpation or computer tomography (CT) were examined for verification by computerized ultrasonography (CS). CS images were recorded with considerable loss of information on Polaroid film. Examinations of the entire mouth and neck region were performed on each patient by at least two investigators. CS permitted differentiation of structures not distinguishable by CT. Particularly well-defined were vascular structures, which were visible well into the periphery. Lymph nodes were demonstrated with great accuracy: cystic decomposition and central necroses were visible down to a diameter of 4 mm. Size, form, and delineation of solid lymph nodes as well as the relationship of nodes to surrounding tissue were clearly depicted. Visualization of the body of the tongue was difficult because of air spaces in the oral cavity. CS detected possibly tumorous structures in six patients that were not detected by palpation or CT. Dynamic movements were well-depicted. CS had the advantage over CT of allowing free choice of image planes. Results indicate that CS is valuable for providing supplemental diagnostic information, but that CS does not replace other methods. (20 Refs) (In GER)

2. YEAST FLORA OF THE MOUTH AND SKIN DURING AND AFTER IRRADIATION FOR ORAL AND LARYNGEAL CANCER.

Martin MV, Al-Tikriti U, Bramley PA
Dept. Oral Pathology, Univ. Sheffield, 31 Claremont Crescent, Sheffield S10 2TA, England
J Med Microbiol; 14(4):457-467 1981

The quantitative and qualitative changes occurring in the fungal flora of 22 patients with oral and 9 with laryngeal carcinoma were studied during and after radiation therapy. Each patient received 6,000 rad of externally applied radiation in divided doses for 5 wk. The fungal flora was isolated from the patients' oral cavity and irradiated skin sites during irradiation and 2 wk and 4-6 mo afterwards. The number and types of fungi increased in both groups of patients after the start of irradiation and persisted at high levels for at least 4-6 mo after treatment. Candida albicans and C tropicalis were the principal yeasts isolated throughout the period studied but seven other species were also identified. All the yeast isolates were sensitive in vitro to miconazole, ketoconazole, amphotericin B and nystatin. Any of these antifungal agents should be appropriate for therapy. (Author abstract) (29 Refs)

3. SQUAMOUS CELL CARCINOMA OF THE ORAL CAVITY IN YOUNG ADULTS.

Amsterdam JT, Strawitz JG
(c/o Strawitz) American Oncologic Hosp., Fox Chase Cancer Center, Central and Shelmire Ave., Philadelphia, PA, 19111
J Surg Oncol; 19(2):65-68 1982

The 12 patients less than 35 yr of age treated for squamous cell carcinoma of the oral cavity at the American Oncologic Hospital between 1954-1979 are examined. Group A (8 patients) had involvement of the tongue; Group B (4 patients) had carcinoma of other oral sites. Mean 'T' stage for Group A and B was 1 and 1.5, respectively. Treatment was surgical in the majority of cases. Seventy-one percent of Group A and 25% of Group B developed metastatic disease to the neck. The 2 yr survival rate was 57% (A) and 75% (B) -75% combined. The collective results of this and other studies suggest lower control rates than those reported for older patients with similar initial presentations. The implications of this observation are discussed in relation to the management of the younger patient with squamous cell carcinoma of the oral cavity. (Author abstract) (8 Refs)

4. SQUAMOUS CARCINOMA OF THE ORAL CAVITY: CHOICE OF THERAPY.

Byers RM, White D, Yue A
Dept. Head and Neck Surgery, M.D. Anderson Hosp., Houston, TX
Curr Probl Cancer; 6(5):27pp. 1981

Management of squamous carcinoma of the oral cavity is discussed. Excluding the larynx and skin, the oral cavity is the most common site for squamous carcinomas arising in the head and neck region. Surgery and radiation are the primary modalities of treatment in eradicating the disease. The proper treatment plan must be decided upon as early as possible. Use of tobacco and alcohol are positively correlated with tumors of the oral cavity. The status of the patient's teeth is extremely important in formulating a treatment decision for cancers of the oral cavity. The value of hyperalimentation is discussed. In elderly patients or those with cardiovascular pulmonary disease, radiotherapy may be the only treatment choice available. Size and growth characteristics of oral cancers. Site of origin, histology, associated leukoplakia, nodal metastases, biopsy procedures, oral tongue, floor of the mouth, buccal mucosa, and lower gum are also reviewed. (11 Refs)

5. CONSERVATIVE TREATMENT OF INFANTILE SUBGLOTTIC HEMANGIOMA WITH CORTICOSTEROIDS.

Kveton JF, Pillsbury HC
(c/o Pillsbury) Surgery/Otolaryngology, Univ. Univ. Sch. Medicine, 333 Cedar St., New Haven, CT, 06510
Arch Otolaryngol; 108(2):117-119 1982

Infantile subglottic hemangioma is a rare, potentially fatal cause of airway obstruction. Diagnosis is made by history, neck roentgenograms, and direct laryngoscopy. A regimen of high-dose intravenous steroids in combination with oxygen and a mist tent is the preferred mode of therapy in cases where tracheostomy is not required. (Author abstract) (7 Refs)

6. CARCINOMA OF THE TONSILLAR REGION: A COMPARISON OF RADIATION THERAPY WITH COMBINED PREOPERATIVE RADIATION AND SURGERY.

Shrewsbury D, Adams GL, Duvall AJ, Maisel RH, Haselow RE
(c/o Adams) Dept. Otolaryngology, Univ. Minnesota, Box 396, Mayo Bldg., Minneapolis, MN, 55455
Otolaryngol Head Neck Surg; 89(6):979-985 1981

The 2-yr outcome of combined radiotherapy (RT: 5,075 rads to the primary site, 4 ,000-5,000 rads to the lower neck and supraclavicular nodes) and surgery (en bloc composite resection, including radical neck dissection) or of full-course RT only (as above, except 7,000 rads to the primary site) was studied in 96 patients with tonsillar carcinomas. Patients developing second primary tumors and patients undergoing other types of tumor resection were excluded from the study. The presence of palpable lymph node involvement (55/96 patients) adversely affected the outcome, regardless of the size of the primary tumor. After 2 yr, 26/47 patients with negative nodes and 23/55 patients with palpable neck disease were alive with no evidence of disease (NED). The 2-yr NED survival rates, tabulated according to tumor size (T stage), were 86% in Stage T1 (12/14 patients), 66% in Stage T2 (14/21), 42% in Stage T3 (20/48), and 8% in Stage T4 (1/13). RT and combined therapy were about equally effective in patients with Stage T1 or T2 primaries and negative lymph nodes; in all other groups, the NED survival rate was better with combined therapy. Combined therapy is advised for T3 primaries, regardless of the extent of nodal involvement, and for T4 primaries if it is feasible to obtain negative surgical margins. Salvage surgery (composite en bloc resection, as above) was considered for patients relapsing after full-course RT, but it was impossible in 32/40 patients because of distant metastases, fixed neck nodes, or massive recurrences. After salvage surgery, 5/8 patients remained NED. Treatment failure was almost always at the primary site and/or the neck. Distant metastases (lung or liver) seldom developed without a local-regional recurrence. (15 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

7. TREATMENT OF CARCINOMA OF THE NASAL CAVITY AND PARANASAL SINUSES.

Robin PE, Powell DJ
Birmingham Area Health Authority (T), Dudley Road Hosp., Birmingham 18, England
Clin Otolaryngol; 6(6):401-414 1981

A retrospective analysis of 528 patients with carcinoma of the nasal cavity and paranasal sinuses who were treated by surgery or radiotherapy alone or in combination is presented. Tumors treated by surgery alone were usually smaller and more accessible, features which may have enhanced their prognosis. Radical surgery alone was administered in 12.7% of patients: the nasal cavity and vestibule were frequent sites, probably because of the small size of lesions found there. Squamous carcinoma, the most common single type of cancer at these sites, was treated by surgery alone in only 9% of 284 cases. Tumors treated by surgery alone involved significantly fewer sites than any of the other treatment categories. Forty-eight percent of the 67 patients treated by radical surgery alone survived 5 yr. Nearly half of the squamous carcinomas were cured due to excellent results obtained in the nasal vestibule, while of those in the antrum and nasal cavity less than one-third survived. Radical surgery alone appears appropriate only in certain cases of small, accessible tumors in the nasal cavity and especially near the nasal vestibule, and particularly salivary and transitional cell carcinomas. Radical radiotherapy alone was used in 158 patients. The choice of radiotherapy alone appears not to be governed by any clear rules. Squamous carcinoma of the antrum treated by radiotherapy was cured in only 9% of men compared to 21% of women. With carcinoma in other sinuses, no survivors were obtained by radiotherapy alone. Anaplastic carcinoma treated by radiotherapy alone had poor results, with only 9% surviving 5 yr; the figure is worse than that for all other forms of treatment (36%). Combined radical surgery and radical radiotherapy was used in 16% of men and 12% of women. Because more advanced cancers were treated by combined radical surgery and radical radiotherapy, the 36% 5-yr-survival rate is better than is apparent. No significant difference was observed between results of radical and subradical surgery, each combined with radiotherapy. (17 Refs)

8. ANTICOMPLEMENT IMMUNOENZYMATIC METHOD OF DETECTING EPSTEIN-BARR NUCLEAR ANTIGEN IN NASOPHARYNGEAL CARCINOMA CELLS IN NORMAL EPITHELIAL CELLS.

Zeng Y, Shen S, Pi G, Ma J, Zhang Q, Zhao M, Dong H
Inst. Virology, Chinese Acad. Medical Sciences, Beijing, People's Republic of China
Chin Med J [Engl]; 94(10):663-668 1981

Epstein-Barr nuclear antigen (EBNA) was tested for by both anticomplement immunofluorescence and anticomplement immunoenzymatic (ACIE) methods in nasopharyngeal cells from 79 patients with nasopharyngeal carcinoma (NPC), cells from 66 patients with suspected NPC, cells from head and neck tumors other than NPC (18), and cells from the nasopharyngeal mucosa of 3-8 mo old dead fetuses (21). ACIE studies of exfoliated cells indicated NPC in 79 cases, of which 62 were also NPC-positive upon histologic and cytologic examination, 10 were NPC-positive by histologic examination only, and 7 were NPC-positive by cytologic examination only. Nine of the suspected cases were NPC-positive by the ACIE method, but were negative upon cytologic or histologic examination. None of the head neck tumor smears or fetal mucosa cells were NPC-positive by any method used. The findings of EBNA in carcinoma cells, hyperplastic epithelial (HE) cells, and ciliated columnar epithelial (CCE) cells of NPC patients, and in HE cells and CCE cells of normal individuals, but with less found in squamous epithelial cells, suggest that Epstein-Barr virus infects normal epithelial cells first, especially CCE cells, integrating its DNA into cellular DNA. (11 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

9. COMBINED LARYNGEAL CONSERVATIVE SURGERY AND IRRADIATION: CAN WE EXPAND THE INDICATIONS FOR CONSERVATION THERAPY?

Goepfert H, Lindberg RD, Jesse RH
Dept. Head and Neck Surgery, Univ. Texas System Cancer Center, M.D., Anderson Hosp. and Tumor Inst. 6723 Bertner, Houston, TX, 77030
Otolaryngol Head Neck Surg; 89(6):974-978 1981

Laryngeal cancers in 39 patients (24 men, 15 women, 34-77 yr old, median 60 yr old) were treated by a combination of conservation surgery and pre- or postoperative radiotherapy (RT: 5,000-5,500 rads to the primary tumor; 5,000 rads to the lower neck area when lymph node involvement was present). These patients were selected for combined treatment because surgery or RT alone was deemed inadequate. One patient died of unknown causes in the postoperative period; the others were followed up for at least 18 mo. Lymph node metastases were present in 8/16 patients with supraglottic cancers. One patient developed neck metastases outside the treatment fields after 13 mo. Two patients died of other causes. After a median of 50 mo, 13/16 had no evidence of disease (NED). Lymph node metastases were present in 1/14 patients with glottic cancer. One patient died of unknown causes 3 wk postoperatively; the others were NED after a minimum of 18 mo. Lymph node metastases were present in 11/19 patients with cancers of the hypopharyngeal wall or pyriform sinus. Eight patients relapsed (7/8 at the primary site or neck, 1/8 distantly); one patient was successfully treated for a recurrence after 33 mo and was NED after 49 mo. Five patients died of other causes; 2/5 deaths were from pulmonary complications caused by persistent aspiration due to pharyngolaryngeal incoordination. After a median of 36 mo, 6/19 patients were NED. It is concluded that this combined treatment can control the cancer and preserve good function in the majority of patients. Because of the high recurrence rate in patients with carcinomas of the pyriform sinus and hypopharyngeal wall, adjuvant chemotherapy may be useful. (12 Refs)

10. THE INCIDENCE OF HYHPOPHARYNGEAL STENOSIS AFTER SURGERY FOR LARYNGEAL CANCER.

Kaplan JN, Dobie RA, Cummings CW

(c/o Dobie) Dept. Otolaryngology RL-30, Univ. Washington Sch. Medicine, Seattle, WA, 98195

Otolaryngol Head Neck Surg; 89(6):956-959 1981

Factors contributing to hypopharyngeal stenosis (HPS) after total laryngectomy (with or without pharyngectomy) and pre- or postoperative radiotherapy (RT: 4,500-6,500 rads to the primary site, anterior neck, and supraclavicular fossae, usually with opposing lateral fields) were studied in 28 patients with squamous cell carcinomas of the larynx. Six patients had additional primary tumors (3 tonsil, 2 tongue, 1 lung, 1 inguinal histiocytic lymphoma). Six patients were followed up for 2-19 yr and the others for 6 mo-2 yr. At the time of report, 22/28 were alive without disease, 5/28 were alive wit h disease, and 1/28 had died of disease. Regional complications developed in 21/28, including HPS in 12/21. The occurrence of HPS was significantly related to tumor site (2/11 supraglottic or glottic; 8/11 pyriform sinus; 2.3 subglottic or transglottic), nodal stage (2/14 Stage NO; 2/4 Stage NI; 5/16 Stage N2; 3/3 Stage N3), and radical neck dissection (performed in 10/12 patients developing HPS), but not to primary tumor size or the timing of RT. All patients with HPS had undergone partial (10/12) or total pharyngeal resection (2/12). Two patients underwent preoperative tracheotomy; both developed HPS. Two patients underwent total pharyngectomy with Staffieri pseudoglottic reconstruction; neither developed HPS. The occurrence of HPS was unrelated to other operative complications. However, 4/12 patients with HPS had persistent or recurrent disease. HPS developing greater than 6 mo after laryngectomy was usually caused by locally recurrent cancer. All patients (8/8) who developed HPS but had no evidence of recurrence developed HPS within 6 mo postoperatively (av, 4 mo). Further studies on the cause(s) and prevention of post-laryngectomy HPS are needed. The exact role of RT in this complication is not yet clear. (11 Refs)

11. TOTAL LARYNGECTOMY WITH VALVULAR PROTECTION BY PHONAL SHUNT ACCORDING TO BONELLI: 56 SURGICAL CASES.

Bonelli L, Aversa SA, Aluffi E, Gandolfi G, Astesiano A, Miscioscia D, Tarditi C

Divisione ORL e Broncologia, Ospedale 'S. Luigi Gonzaga', Orbassano (Torino), Italy

Minerva Otorinolaringol; 31(3):243-252 1981

Of 21 patients with total laryngectomies (TL) performed in 1974-1976, 12 had additional corrective surgery and 9 received valves. After 1 yr, five of the patients retained their valves, while valves were removed from four patients. Another 18 patients underwent TL in 1977-1978; of these, 3 received valves during surgery, 8 had additional corrective surgery, and 7 received valves at that time. After 1 yr, seven patients retained their valves, while three had their valves removed. All of 11 patients who underwent TL in 1979-1980 received valves during surgery, all had very good deglutition, 7 had good speaking voices, and 4 had passable speaking voices. After 1 yr, eight patients were living, their deglutition was excellent, and their voices were good. Six additional valves were inserted, three of them in patients that had had TL elsewhere. One patient had had a valve for 7 yr and had had it exchanged 3x; the exchange usually occured between 6 mo and 2 yr. The valve is positioned in the esophagus, inducing phonal shunt, which regulates swallowing and voice production. The valve weighs approx 0.5 g, can be swallowed without consequences, and is well tolerated by surrounding tissue. (50 Refs) (In ITA)

12. THE SIGNIFICANCE OF LARYNGEAL EDEMA FOLLOWING RADIOTHERAPY OF CARCINOMA OF THE V OCAL CORD.

Fu KK, Woodhouse RJ, Quivey JM, Phillips TL, Dedo HH

Dept. Radiation Oncology, Univ. California San Francisco, 330 Moffitt Hosp., San Francisco, CA, 94143

Cancer; 49(4):655-658 1982

Laryngeal edema persisting for more than 3 mo following radiotherapy developed in 38 of 247 (15.4%) patients irradiated for carcinoma of the vocal cord. In 17 (44.7%) of these patients, the laryngeal edema was associated with persistent or recurrent disease, although only 25.4% of the patients with uncontrolled disease had laryngeal edema. The incidence of laryngeal edema was 13.1% for T1 disease, 23.8% for T2, and 21.4% for T3 and T4 disease. It increased significantly with increase of min tumor dose greater than or equal to 7,000 rad or with NSD greater than 1,900 ret, being 46.2% with min tumor dose greater than or equal to 7,000 rad and 13.7% with min tumor dose less than 7,000 rad and 43% with NSD greater than 1,900 ret and 17% with NSD less than or equal to 1,900 ret. It also increased with increase of field size, being 13.4% with field sizes less than 6.0 x 6.0 cm2, and 24.4% with field sizes greater than or equal to 6.0 x 6.0 cm2. When laryngeal edema is progressive and unresponsive to conservative measures, multiple biopsies should be performed to establish the presence of persistent or recurrent disease before salvage surgery is attempted. However, if it is mild, stable, no visible recurrence develops, and especially if it is limited to the arytenoids, no biopsy should be attempted because of the risk of inducing laryngeal necrosis. (Author abstract) (11 Refs)

13. THE MANAGEMENT OF CARCINOMA OF THE CERVICAL ESOPHAGUS.

Farrington WT, Orr WM, Gooder P
Dept. Otolaryngology, Manchester Royal Infirmary, Manchester, England
Ear Nose Throat J; 61(1):42-49 1982

The goal of surgical treatment of carcinoma of the cervical esophagus following irradiation is to enable the patient to swallow normally and to remain disease free for as long as possible. Indications and contraindications to surgery are outlined. The surgical procedure is described with respect to preoperative care, the cervical approach, abdominal and thoracic dissections, transection of the esophagus and construction of the pharyngogastric anastomosis, and postoperative care. Complications include salivary fistula and stomal or tracheal necrosis. (5 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

14. INTRAOPERATIVE CYTOLOGICAL DIAGNOSIS IN SURGERY ON THE THYROID GLAND.

Fabian E, Lukacs G, Csaky G, Balazs Gy
I. Sebeszeti Klinika, Debreceni Orvostudomanyi Egyetem, Debrecen, Hungary
Orv Hetil; 122(48):2943-2945 1981

Intraoperative cytological examinations were performed in 216 patients subjected to surgery for various diseases of the thyroid gland. The ultimate diagnosis was that of malignant tumor in 58 patients, benign adenoma in 28, thyroiditis in 22, regressive atypia in 4, hyperfunction in 19 and other nonmalignant diseases (ONMD) in 85. The results of the intraoperative cytological examinations were correct in 207/216 patients, incorrect in 9 (false positive in 7/9 and false negative in 2/9). The cytological findings were incorrect in 2/58 patients with malignant tumors, 3/28 with benign adenoma, 2/22 with thyroiditis, 1/4 with regressive atypia and 1/85 with ONMD. One malignant tumor was diagnosed correctly cytologically, but the histological finding was positive only on reoperation. The histological type of the malignant tumors, established in 57 cases, was papillary or mixed carcinoma in 26 cases, follicular carcinoma in 11, undifferentiated carcinoma in 10, medullary carcinoma in 2 and other malignant tumor in 8. Among the seven patients with false positive cytological diagnoses, follicular adenoma was diagnosed histologically in three, chronic thyroiditis in two, and regressive thyroiditis in one. Papillary or mixed carcinoma was diagnosed in one patient with histologically established metastatic follicular carcinoma. One of the 11 follicular carcinomas was diagnosed cytologically incorrectly as a benign tumor, while three follicular adenomas were incorrectly diagnosed cytologically as malignant tumors. (22 Refs) (In HUN)

15. SQUAMOUS CELL CARCINOMA OF THE THYROID GLAND - TRANSITION FROM ADENOCARCINOMA.

Harada T, Shimaoka K, Yakumaru K, Ito K
Div. Endocrine Surgery, Kawasaki Medical Sch., 577, Matsushima, Kurashiki City, Okayama Prefecture, Japan
J Surg Oncol; 19(1):36-43 1982

In eight autopsy cases of thyroid carcinoma, adenocarcinoma and squamous cell carcinoma coexisted, and presented. In these adenosquamous cell carcinoma, pathological findings suggest direct transition from papillary adenocarcinoma to squamous cell carcinoma, rather than transformation to squamous cell carcinoma via squamous metaplasia. We believe that squamous cell carcinoma arises from adenocarcinoma of the thyroid in most cases. (Author abstract) (24 Refs)

16. MYOEPITHELIOMA OF SALIVARY GLANDS: REPORT OF 23 CASES.

Sciubba JJ, Brannon RB
Dept. Dentistry, Long Island Jewish-Hillside Medical Center, New Hyde Park, NY, 11042
Cancer; 49(3):562-572 1982

Twenty-three neoplasms arising in major and minor salivary glands have been found to be composed of two types of myoepithelial cells - the plasmacytoid and spindle-cell form. Twelve of these were located within the parotid gland and the submandibular gland and intraoral minor salivary glands accounted for 5 each. A solitary example was found within the upper lip. Sixteen (70%) of the cases were of the spindle-cell type, 4 (17%) were composed of plasmacytoid cells, and 3 cases (13%) contained both cell forms in approximately equal quantity. Differences in behavior, recurrence rate, frequency, age of the patient, and location were not related to cell type. Ultrastructural analysis of selected cases showed myofilament aggregation patterns to vary between the two subtypes. Previously published cases confirmed by electron microscopy have been reviewed and compared with the 23 cases reported. Conservative surgical management is curative. Follow-up information on 16 cases is presented. (Author abstract) (18 Refs)

17. LACTOFERRIN AND LYSOZYME IN CARCINOMAS OF THE PAROTID GLAND: A COMPARATIVE IMMUNOCYTOCHEMICAL STUDY WITH THE OCCURRENCE IN NORMAL AND INFLAMED TISSUE.

Caselitz J, Jaup T, Seifert G
Inst. Pathology, Univ. Hamburg, Martinistrasse 52, D-2000 Hamburg, W. Germany
Virchows Arch [Pathol Anat]; 394(1/2):61-73 1981

Lactoferrin and lysozyme, parts of the non-specific defense system, were studied in normal and diseased parotid glands, using the immunohistochemical PAP-method. Thirty-one normal and inflamed glands were investigated. The presence of lactoferrin and lysozyme was demonstrated in the acinar cells and some duct cells. The amount of these substances was increased in obstructive parotitis. The 52 carcinomas showed a distinct distribution pattern for lactoferrin (positive cases: adenocarcinomas 5 of 8; cystadenocarcinomas: 3 of 5; adenoid cystic carcinomas 2 of 4; salivary duct carcinomas 2 of 3). Some of the carcinomas in pleomorphic adenomas were positive for lactoferrin. Squamous cell carcinomas and anaplastic carcinomas were constantly negative. All carcinomas were negative for lysozyme. These observations are discussed with respect to their physiological and pathological significance. (Author abstract) (27 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

18. MALIGNANT INTRAOCULAR TUMORS.

Brady LW, Shields JA, Augsburger JJ, Day JL
Dept. Radiation Therapy and Nuclear Medicine, Hahnemann Medical Coll. and Hosp., MS-200, 2300 North Broad St., Philadelphia, PA, 19102
Cancer; 49(3):578-585 1982

The role of the radiation therapist in the management of malignant intraocular tumors is changing. With more active identification of malignant intraocular tumors, and a better recognization of the manner in which one can deal with problems of radiation sensitivity, radiation techniques of all sorts will be more actively employed in the treatment of these tumors. Special techniques must be selected for appropriate circumstances of management in order to diminish to an absolute minimum the impact upon the lens, the impact upon visual acuity and the impact upon the cornea. Cobalt-60 plaques are being used more commonly in the treatment of melanomas of the choroid, and the role for radiation therapy in the management of retinoblastoma is changing markedly to where it may be used as the primary treatment program rather than en ucleation. In metastatic disease involving the uveal tract, radiation therapy has assumed the most important role for management. Chemotherapy should be considered as an active adjuvant in the management of not only those individuals with retinoblastoma but also in those identified circumstances where metastases to the uveal tract are being treated. The role for chemotherapy or immunotherapy in malignant melanoma is unclear. (Author abstract) (26 Refs)

19. ADJUVANT CRYOTHERAPY FOR FOCAL NODULAR MELANOMA OF THE CONJUNCTIVA.

Jakobiec FA, Brownstein S, Wilkinson RD, Katzin HM
(c/o Brownstein) Dept. Ophthalmology, Royal Victoria Hosp., Room E4.61, 687 Pine Ave. W., Montreal, Quebec H3A 1A1, Canada
Arch Ophthalmol; 100(1):115-118 1982

After excision of invasive conjunctival melanoma, there is a high recurrence rate, usually owing to small amounts of residual intraepithelial melanocytes or tumor cells at the base of the excision. Adjuvant cryotherapy was used in two patients to widen the margins of surgical excision and prevent recurrences, which have not developed during periods of 28 and 24 months postoperatively. This method allows preservation of substantia propria and reduces possible functional complications from surgical sacrifice of larger amounts of full-thickness conjunctiva. (Author abstract) (9 Refs)

20. NON CHROMAFFIN PARAGANGLIOMAS OF THE HEAD AND NECK. DIAGNOSTIC AND THERAPEUTIC ANGIOGRAPHY IN 19 CASES EXPLORED FROM 1977 TO 1980.

Lasjaunias P, Menu Y, Bonnel D, Doyon D
Service de Radiologie, Universite Paris XI, U.E.R. Kremlin-Bicetre, 78, rue du General-Leclerc, 94270 Kremlin-Bicetre, France
J Neuroradiol; 8(4):281-299 1981

Nineteen cases of non chromaffin paraganglioma of the head and neck explored from 1977 to 1980 are reported. Twenty-five angiographies were performed, including 14 with embolization. Sixteen patients were operated upon, 2 of them without prior embolization. No lasting complication occurred in this series; only two asymptomatic extravasations during embolization and one peripheral facial paralysis which regressed spontaneously within 3 days were observed. During a 6-mo to 4-yr follow-up, no objective or subjective sign of recurrence was seen in patients who had preoperative embolization. Out of 19 patients explored, only 3 had clinical symptoms suggesting secretory activity of the lesion. VMA or 5-HIAA levels were not measured in any of the patients. An extremely strict procedure aimed at providing a complete map of the lesion and accurate information on its primary bilateral multifocal character has been developed. The information obtained by this method on the jugular venous system is sufficient to preclude jugulography, which was only performed once and early in this series. In the second part of this paper, four cases crea ting special problems are discussed. Non chromaffin paragangliomas of the head and neck must be embolized when they are amenable to surgery. In inoperable cases embolization can alleviate symptoms provided it is aimed at pre-determined, well-defined targets. The authors consider that embolization may on no account be considered as an alternative to surgery when tumors are operable. (42 Refs)

21. THE MANAGEMENT OF MEIBOMIAN GLAND CARCINOMA.

Harvey JT, Anderson RL
(c/o Anderson) Dept. Ophthalmology, Univ. Iowa Hosp. and Clinics, Iowa City, IA, 52242
Ophthalmic Surg; 13(1):56-61 1982

Cases of nine patients (6 women, 3 men; aged 59-88 yr, av age 72.1 yr) with sebaceous adenocarcinoma of meibomian glands are presented. The duration of time between onset of symptoms and diagnosis ranged from 1 to 24 mo (av 15.4 mo). Clinical presentation was variable and deceptive. Four patients presented with a lid mass, two with chalazion or stye, one with chronic blepharitis and lid mass, one with intraepithelial epithelioma, and one with a conjunctival/caruncular mass. When the tumor presented in the eyelid, the definition of the meibomian gland orifices were usually lost in the area of tumor involvement. Extensive lash occurred, and loss in the involved part of the eyelid was noticed. Tumors involved the upper lid (4 patients), the upper and low lid (2), the lower lid alone (2), and the caruncle (1). Follow-up ranged from 0.5-5 yr (av 2.4 yr). Treatment included tumor resection with standard frozen section monitoring at surgery (1 patient), Moh's fresh frozen technique followed by lid reconstruction (3), radiation (5,300 R; 1 patient), excisional biopsy (1), radiation (6,000 R), followed by conjunctival cryopexy then exenteration parotidectomy and radical neck dissection (1), and exenteration followed by radical neck dissection (1). Errors in diagnosis occur because of the tendency of this tumor to simulate a benign inflammatory condition, an inadequate biopsy specimen, or confusion with intraepithelial epithelioma. Moh's fresh frozen tissue technique is treatment of choice for surgically resectable lesions, while exenteration should be performed for those with orbital or conjunctival disease. Radiation may be useful for patients who refuse surgery or exenteration or cannot tolerate surgery. (16 Refs)

22. GLOMUS JUGULARE TUMOUR.

Latif M, Pandhi SC, Mehra YN, Arora MM
Postgraduate Inst. Medical Education and Res., Chandigarh 160012, India
Minerva Otorinolaringol; 31(3):307-310 1981

Eight patients (5 men, 3 women; 18-58 yr old) with glomus jugulare tumor had the following signs and symptoms: mass in external auditory canal (8), hearing impairment (8), profuse bleeding (3), pain (2), tinnitus (2), and difficulty in swallowing

(1). Some symptoms lasted from 1.6-5 yr before the patients sought medical help. Cranial nerve palsies were observed in four patients; radiography indicated erosion of the mastoid bone in five. All patients had carotid angiography and/or retrograde jugular venography, but no cranial extensions were observed. Surgery was the only therapy for four patients, extensive resection being performed. Two patients had partial excision and radiotherapy (RT). Only RT was used in one patient, and considerable regression of the tumor was observed. One patient that was treated with RT had complete remission; 4 yr later, this patient had a relapse, cryotherapy was applied, and the mass regressed. One patient died a few days after surgery, and one was lost; two were free of disease, and four were living with residual disease at follow-up (up to 10 yr; av. 2.8 yr). (5 Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

23. BONE SCANNING IN THE ASSESSMENT OF MANDIBULAR INVASION BY ORAL CAVITY CARCINOMAS.

Weisman RA, Kimmelman CP
Dept. Otorhinolaryngology, Univ. Pennsylvania, 3400 Spruce St., Philadelphia, PA, 19104
Laryngoscope; 92(1):1-4 1982

Mandibular invasion alters the staging and treatment of oral cavity squamous cell carcinoma, and thus its detection is essential to the head and neck oncologist. There is little information assessing the accuracy of the radionuclide bone scan and the roentgenogram in determining mandibular invasion. The present study reports data on 40 patients with squamous cell carcinoma of the oral cavity for whom bone scans, mandibular roentgenograms, and histologic examination of the mandible were available. The bone scan correctly predicted mandibular invasion in 8 of 9 cases; the false positive rate was 53% as a result of mandibular inflammatory changes. The bone scan was more accurate than the roentgenogram in predicting tumor invasion of the mandible, but the bone scan had a higher false positive rate. A normal bone scan and roentgenogram virtually precluded tumor involvement of the mandible. We conclude that the bone scan is an important adjunct in the prediction of carcinomatous invasion of the mandible in squamous cell carcinoma of the oral cavity. (Author abstract) (9 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

24. RANDOMIZED TRIAL OF VINCRISTINE-METHOTREXATE-BLEOMYCIN AND CISPLATIN OR DETORUBICIN FOR ADVANCED HEAD AND NECK CANCER.

Cappelaere P, Chauvergne J, Klein T, Gary-Bobo J, Guerrin J, Meeus L
Centre Oscar Lambret, rue F.-Combemale, B.P. 307, F-59020 Lille Cedex, France
Bull Cancer (Paris); 68(5):422-427 1981

In a randomized multicenter trial, 151 patients, with advanced epidermoid carcinoma of the head, neck and esophagus, were treated with an association of vincristine, methotrexate, bleomycin and cisplatin (Group I) or detorubicin (Group II). Prognostic factors were equally distributed for both groups. Partial or complete responses were obtained in 22 patients of Group I (29%) and 9 in Group II (12%), (p less than 0.05). Objective response rates were higher in untreated patients or those in good condition but the difference was not statistically significant. Five deaths, probably treatment induced, (3%) were observed. Treatment was stopped in 22 patients (15%) for hematological, general or digestive toxicity. This trial confirms the efficacy of vincristine, methotrexate, bleomycin and cisplatin for advanced head and neck carcinomas. (Author abstract) (21 Refs) (In FRE)

25. MODIFIED RADICAL NECK DISSECTION FOR SQUAMOUS CARCINOMA OF THE HEAD AND NECK.

Pearlman NW, Meyers AD, Sullivan WG
Dept. Surgery, Denver Veterans Admin. Hosp., Denver, CO
Surg Gynecol Obstet; 154(2):214-216 1982

Since 1977, 56 modified radical neck dissections have been carried out for squamous carcinoma of the head and neck. Twenty patients with histologically proved node metastases have been observed for at least 18 mo, as have 15 patients with negative nodes, and there has been one recurrence in the midjugular area of the neck in each group. Both patients with a recurrence had standard radical neck dissections and both remain free of disease 9 and 12 mo later. The modified dissection would appear to be useful for not only carcinoma of the thyroid but squamous carcinoma of the head and neck as well. (Author abstract) (7 Refs)

26. NECK DISSECTION: CURRENT STATUS AND FUTURE POSSIBILITIES.

Shah JP, Strong E, Spiro RH, Vikram B
Head and Neck Service, Dept. Surgery, Memorial Sloan Kettering Cancer Center, New York, NY
Clin Bull; 11(1):25-33 1981

The development of nodal metastases deriving from head and neck epidermoid cancer depends on the location and stage of the primary tumor. Positive lymph nodes were found in 51% of T1 tumor patients, in 60% of T2 and in 70% of T3 tumor patients. In order to improve the control of locoregional metastasis growth, surgery was combined with preoperative radiotherapy: 2,000 rads in five fractions. The recurrence-rate at the primary site dropped from 24.5% in the control group to 17.4% in the preoperatively treated group. The survival rate, however, was only increased for the 1st postoperative yr (75% in the treated group, 60% in the control). After 3 yr the difference in survival rates had levelled out. With postoperative radiotherapy of 4,500-6,000 rads the recurrence rate of head and neck carcinomas was 24% after a median followup of 2.5 yr. Standard neck surgery including radical neck dissection was modified in cases of bulky midline mouth or larynx carcinoma if it involved adjacent soft tissue. In these cases simultaneous bilateral operation is indicated. It was shown that elective operations do not have an influence on the prognosis of patients with differentiated thyroid cancer. If in these patients gross metastases are present, modified neck dissection is also indicated. On the other hand, modified neck dissection is not advised in patients with metastatic squamous carcinoma. (17 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

27. EXPERIENCE WITH IMMEDIATE AND DELAYED MANDIBULAR RECONSTRUCTION.

Lawson W, Loscalzo LJ, Baek SM, Biller HF, Krespi YP
Dept. Otolaryngology, Mount Sinai Hosp., 100th St. and Fifth Ave., New York, NY, 10029
Laryngoscope; 92(1):5-10 1982

The functional disability and cosmetic deformity after jaw and neck dissection can be very severe due to soft tissue and mandibular loss. Reconstruction of the mandible alone without soft tissue coverage can be complicated with prosthetic exposure, infection and, finally, rejection. We attempted to reconstruct the mandible at the time of tumor resection in a group of patients, using titanium mesh with marrow, rib, scapular spine, and clavicle. We used myocutaneous flaps in order to obtain intraoral coverage of the mandibular grafts. In a second group of patients, delayed reconstruction of the jaw was performed 6 months to 2 years after tumor resection. Titanium mesh prostheses were used for reconstruction of the mandible in conjunction with myocutaneous flaps for soft tissue augmentation. Osteomyocutaneous flaps were also used. The results and complications in 54 patients are presented. (Author abstract) (32 Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

28. RETINOIC ACID-BINDING PROTEIN IN HUMAN SQUAMOUS CELL CARCINOMAS OF THE ORL REGION.

Bichler E, Daxenbichler G
Univ. HNO-Klinik Innsbruck, Anichstrasse 35, A-6020 Innsbruck, Austria
Cancer; 49(4):619-622 1982

In some squamous cell carcinoma of the otorhinolaryngologic region with different grades of differentiation, a protein was found that specifically binds vitamin A acid. In 28 of 37 tumors, the retinoic acid-binding sites were found in significant amounts, according to the authors' data. Areas with metastases showed a lower incidence of retinoic acid-binding, whereas in all normal epiglottis and vocal cord tissue specimens the binding was present. The possible significance of the protein-binding for the biologic effect of the vitamin A acid is discussed. (Author abstract) (28 Refs)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—361-847/120

AUTHOR INDEX WITH CITATION NUMBERS

Adams GL 6
Al-Tikriti U 2
Aluffi E 11
Amsterdam JT 3
Anderson RL 21
Arora MM 22
Astesiano A 11
Augsburger JJ 18
Aversa SA 11
Baek SM 27
Balazs Gy 14
Bichler E 28
Biller HF 27
Bonelli L 11
Bonnel D 20
Brady LW 18
Bramley PA 2
Brannon RB 16
Brownstein S 19
Byers RM 4
Cappelaere P 24
Caselitz J 17
Chauvergne J 24
Csaky G 14
Cummings CW 10
Daxenbichler G 28
Day JL 18
Dedo HH 12
Dobie RA 10
Dong H 8
Doyon D 20
Duvall AJ 6
Fabian E 14
Farrington WT 13
Fu KK 12
Gandolfi G 11
Gary-Bobo J 24
Goepfert H 9
Gooder P 13
Guerrin J 24
Harada T 15
Harvey JT 21
Haselow RE 6
Hauenstein H 1
Ito K 15
Jakobiec FA 19
Jaup T 17
Jesse RH 9
Kaplan JN 10
Katzin HM 19
Kimmelman CP 23
Klein T 24
Krespi YP 27
Kveton JF 5
Lasjaunias P 20
Latif M 22
Lawson W 27
Lindberg RD 9
Loscalzo LJ 27
Lukacs G 14
Ma J 8
Maisel RH 6
Martin MV 2
Meeus L 24
Mehra YN 22
Menu Y 20
Meyers AD 25
Miscioscia D 11
Orr WM 13
Pandhi SC 22
Pearlman NW 25
Phillips TL 12
Pi G 8
Pillsbury HC 5
Powell DJ 7
Quivey JM 12
Robin PE 7
Rothe F 1
Sciubba JJ 16
Seifert G 17
Shah JP 26
Shen S 8
Shields JA 18
Shimaoka K 15
Shrewsbury D 6
Spiro RH 26
Steinkamp B 1
Strawitz JG 3
Strong E 26
Sullivan WG 25
Tarditi C 11
Vikram B 26
Weisman RA 23
White D 4
Wilkinson RD 19
Woodhouse RJ 12
Yakumaru K 15
Yue A 4
Zeng Y 8
Zhang Q 8
Zhao M 8

Keep Up with the Cancer Literature

Each Month
You Can Receive Abstracts
Covering Your Specialty Area

- This convenient service — called Auto SDI* — is as near as your nearest biomedical library. Discuss your research interests with the librarian who will design an appropriate search strategy.
- Abstracts of the latest published literature are searched automatically each month and those related to your interests are delivered to you on a regular basis.
- The abstracts you receive are selected from more than 4,000 monthly entries made into CANCERLIT — the extensive cancer literature data base of the National Cancer Institute.

Talk With Your Librarian
About the Auto SDI Service TODAY.

---

*Auto SDI stands for Automatic Selective Dissemination of Information. It is a service provided to you, at minimal cost, by the International Cancer Research Data Bank (ICRDB) — a part of the National Cancer Institute.

INTERNATIONAL CANCER RESEARCH
DATA BANK

Compilation of Experimental Cancer Therapy Protocol Summaries

COMPLIMENTARY COPIES
NOW AVAILABLE

April 1982
Sixth Edition

CONTENT

This document contains summaries of over 1200 open experimental clinical cancer therapy protocols from countries around the world.

Open protocols are arranged in sections according to the specific type of cancer.

Protocols closed in 1981 are listed by title, number, and investigator in a separate section.

INDEXES

Tumor index
Agent/Modality index
Protocol identification number index

Mail to:
Compilation Request
ICRDB Program
National Cancer Institute
Westwood Building Room 10A18
Bethesda, Maryland 20205

Request for 1982 COMPILATION
(Print Clearly for use as mailing label)

Name: ____________________

Address: ____________________

____

City/State/Zip: ____________________

Country: ____________________

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

U.S.MAIL

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/07

NCI/ICRDB/CT11 82/07

PB82-938507

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/07

JULY, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY

AUG 31 1982

U. S. GOVT. PUBS.

DID YOU KNOW?? EACH CANCERLIT SEARCH THAT PROVIDES YOU WITH USEFUL DATA CAN BE STORED IN THE COMPUTER FOR AUTOMATIC SEARCHING OF NEW DATA EACH MONTH. ASK YOUR LIBRARIAN ABOUT AUTOMATIC SELECTIVE DISSEMINATION OF INFORMATION (AUTO-SDI).

In this issue:

- **ORAL CAVITY AND OROPHARYNX TUMORS** 1-2
- **PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS** 3
- **HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS** 4-6
- **THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS** 7-10
- **OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS** 11
- **MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES** 12-13
- **PROGRESS IN RECONSTRUCTION AND REHABILITATION** 14-15
- **SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS** 16-18

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

ORAL CAVITY AND OROPHARYNX TUMORS

1. THE MANAGEMENT OF ADVANCED CARCINOMA OF THE TONGUE BY TOTAL GLOSSECTOMY WITHOUT LARYNGECTOMY.

Effron MZ
Dept. Otolaryngology, Univ. Pittsburgh, Sch. Medicine, Eye and Ear Hosp., Pittsburgh, PA
Trans Pa Acad Ophthalmol Otolaryngol; 34(2):158-163 1982

Ten patients (40-68 yr old) with advanced squamous cell carcinomas of the tongue underwent total glossectomy and radical or bilateral neck dissection, without laryngectomy. Three patients h ad failed full-course radiotherapy (RT); six others received postoperative RT. Unspecified chemotherapy was given to three patients. One patient was given no adjunctive therapy. At the time of report, 3/10 patients had died after 4-18 mo (2/3 of the disease), 2/10 were alive with disease (10-12 mo), and 5/10 were alive without disease (4/5 after 1-7 mo, 1/5 after 5 yr). Postoperative evaluation of these 10 patients, together with 14 other patients treated at another hospital, showed that all patients learned to swallow without aspiration (although 2/24 required feeding by gavage) and produced intelligible speech without electronic aids. The patients learned to protect the airway in swallowing by adopting pharyngeal motion and closing the glottis; this process was easiest when a cricopharyngeal myotomy was part of the original procedure. Swallowing was easiest when the reconstructive procedure involved a pectoralis major myocutaneous flap. Two other patients treated by the author underwent total laryngectomy as part of the procedure; both were alive without recurrence after 3-4 mo. These patients were selected for laryngectomy because of the extent of the tumor and their poor cardiopulmonary status. It is concluded that laryngectomy can be avoided in carefully selected, highly motivated patients undergoing glossectomy, by the use of intensive postoperative training in swallowing and speech production. (7 Refs)

2. ANALYSIS OF THE PARAMETERS RELATING TO FAILURES ABOVE THE CLAVICLES IN PATIENTS TREATED BY POSTOPERATIVE IRRADIATION FOR SQUAMOUS CELL CARCINOMAS OF THE ORAL CAVITY OR OROPHARYNX.

Feldman M, Fletcher GH
(c/o Fletcher) Dept. Radiotherapy, Univ. Texas M. D. Anderson Hosp. and Tumor Inst., Houston, TX, 77030
Int J Radiat Oncol Biol Phys; 8(1):27-30 1982

Patients with squamous cell carcinomas of the oral cavity (56 patients) or oropharynx (46) were treated postoperatively with 5,000-6,500-rad radiotherapy. Recurrences above the clavicles appeared within 2 yr in 35/38 patients, within 30 mo in 95%, and within 3 yr in 100%. Of the total of 102 patients, 81 were evaluable for control of disease above the clavicles. In patients with T3 or T4 lesions, the incidence of failures at the primary site alone or with neck disease was 22% and 32%, respectively, for the oral cavity and oropharynx. Of the 8 patients with positive surgical margins who experienced a failure, the tumor doses were 5,000 rad in 2/8, 6,000 rad in 5/8, and 6,500 in 1/8. Within this group of eight patients, T4 predominated with an oropharynx primary, primarily on the posterior pharyngeal wall. In nine other patients, despite generous portals, a failure occurred close to or outside of the periphery of the portals. Neck failure with primary controlled was usually the result of no elective irradiation or uncertain dose. Failure rates for different studies are compared. Where definite disease exists at the margin of resection, 6,500 rad or in specific situations 7,000 rad should be given through reduced fields. (6 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

3. COMPLEMENT-FIXING ANTIBODY TO EPSTEIN-BARR VIRUS SOLUBLE ANTIGEN IN POPULATIONS AT HIGH AND LOW RISK FOR NASOPHARYNGEAL CARCINOMA.

Levine PH, Ebbesen P, Connelly RR, Das S, Middleton M, Mestre M
NCI, Landow Bldg., ID-12, Bethesda, MD, 20205
Int J Cancer; 29(3):265-268 1982

Greenland Eskimos comprise an ethnic group with one of the highest recorded incidence rates for nasopharyngeal carcinoma in the world. Sera from 625 Eskimos and 73 Danes (Caucasians) living in Greenland, as well as from 62 Danes living in Denmark, were tested for complement-fixing antibody to Epstein-Barr virus (EBV) soluble antigen and, from this study group, 129 donors were matched by age and sex for a study comparing antibody to viral capsid antigen, early antigen, and soluble antigen. Both Eskimos and Danes living in Greenland had significantly higher titers of EBV antibodies than Danes living in Denmark, suggesting that environment was more important than genetics or socioeconomic factors in determining the antibody response to EBV. Age and sex were also factors, higher titers occurring in females and young Eskimos. (Author abstract) (21 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

4. ADENOID-CYSTIC CARCINOMA (CYLINDROMA) OF THE TRACHEA. AN ANALYSIS OF NINE CASES.

Stark P
Dept. Radiology, Massachusetts General Hosp., Boston, MA, 02114
ROEFO; 136(1):31-35 1982

Nine patients with an adenoid-cystic carcinoma of the trachea are described. It is a rare tumor which grows relatively slowly; it has a tendency for early invasion of neighboring tissues, but late distant metastases. A correct diagnosis can be made by the radiologist. The trachea should be visible on every film of the thorax and should be inspected. In particular, a diagnosis of therapy-resistant asthma should direct the attention of the radiologist to the trachea. (Author abstract) (6 Refs) (In GER)

5. PRODUCTION OF LEUKOCYTE MIGRATION INHIBITION FACTOR BY LYMPHOCYTES OF LARYNX CANCER PATIENTS STIMULATED BY LARYNGEAL CARCINOMA SOLUBILIZED MEMBRANE ANTIGENS.

Cortesina G, Cavallo GP, Beatrice F, Sartoris A, Bussi M, Morra B, Di Fortunato V, Poggio E, Rendine S
II Clinica Otorinolaringologica, Universita di Torino, Via Genova 3, 10126 Torino, Italy
Tumori; 68(1):39-46 1982

The production of leukocyte migration inhibition factor (LIF) from lymphocytes after stimulation with 3 M KCl soluble tumor and normal mucosa extracts was investigated in 30 patients with laryngeal carcinoma at different developmental stages and in 30 normal donors. The experiments were performed in heterologous and autologous systems. In heterologous systems 3 M KCl tumor extracts induced LIF production by heterologous lymphocytes from patients in 91% of the cases, and normal mucosa extracts induced LIF production by heterologous lymphocytes from patients in 73% of the cases and from normal donors in 90% of the cases. In autologous systems 3 M KCl tumor extracts induced LIF production by autologous lymphocytes from the same patients in 65% of the cases, whereas the normal laryngeal mucosa extracts induced LIF production by the same autologous lymphocytes in 6% of the cases. The high positivity percentage of the test in heterologous systems could be related to differences in the major histocompatibility complex. The 65% test positivity in autologous systems using tumor extracts could be related to the presence of tumor associated antigens. (Author abstract) (20 Refs)

6. ADULT LARYNGEAL PAPILLOMATA.

Alberti PW, Dykun R
Mt. Sinai Hosp., Suite 405, 600 University Ave., Toronto, Ontario M5G 1X5, Canada
J Otolaryngol; 10(6):463-470 1981

Fifty-two cases of laryngeal papillomata were retrospectively reviewed. Twelve patients were adults with residual recurrent childhood papillomata and 40 developed papillomata after the age of 16 yr. In the juvenile-onset group, the female:male ratio was 2:1, while in the adult-onset group, it was 1:2. Thirty-eight patients presented with multiple papillomata and two others ultimately developed multiple lesions. Hoarseness was the most common presenting symptom. Vocal cords were the usual site of the lesions; 44/52 had bilateral or unilateral lesions and 18 had additional papillomata elsewhere in the larynx. The false cord and epiglottis were the main sites in the eight patients with no vocal cord involvement. Age of onset ranged from infancy to late adult life. Original diagnosis was benign laryngeal papillomata in all patients. Treatment was most often with surgical excision under direct microlaryngoscopy. Seven patients underwent laser excision. Four received radiotherapy, and ultrasound plus immunotherapy were used in one female. Most adult-onset patients were adequately treated with less than 10 surgical excisions, while 6/10 patients with juvenile-onset disease required 20-68 surgical excisions. Complications included laryngeal stenosis (6 patients), tracheotomy (6), subglottic stenosis (1), and bronchial stenosis (1). (42 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

7. RADIOGRAPHIC FINDINGS IN RECURRENT PARATHYROID CARCINOMA.

Krudy AG, Doppman JL, Marx SJ, Brennan MF, Spiegel A, Aurback GD
(c/o Doppman), NIH, Room 6S211, Building 10, Bethesda, MD, 20205
Radiology; 142(3):625-629 1982

Seven cases of recurrent parathyroid carcinoma were reviewed. Subperiosteal resorption was seen in six, pulmonary nodules in four, renal calculi in five, brown tumors in five, and pancreatic calcifications in one. Angiography was performed in five patients, showing one definite and two probable cervical recurrences, one mediastinal lesion, and one case of possible bone metastases. Venous sampling for parathyroid hormone was carried out in four patients and suggested residual disease in two; in addition, there were one false and one true negative. CT was performed in four patients and was useful in delineating metastatic pulmonary nodules, cervical recurrence, and hepatic metastases. The radiographic approach to recurrent parathyroid carcinoma and the use of CT and angiography are discussed. (Author abstract) (10 Refs)

8. CHEMOTHERAPY FOR SALIVARY GLAND CANCER.

Suen JY, Johns ME
Dept. Otolaryngology and Maxillofacial Surgery, Univ. Arkansas Medical Sciences, 4301 West Markham, Little Rock, AR, 72205
Laryngoscope; 92(3):235-239 1982

Salivary gland cancers are usually treated with surgery and irradiation; however, some of the aggressive salivary gland cancers recur or metastasize and are not amendable to treatment with further surgery or irradiation. Little is known about chemotherapy for these palliative situations because of the relative scarcity of these cancers. The data in the literature has provided little clinical information because all salivary gland cancers are usually lumped together and/or multiple different drug combinations are used. In an effort to arrive at a rational basis for recommending specific drug regimens for specific histologic types of salivary gland cancers, a two-part study was undertaken to determine which chemotherapy drugs seem to be effective or ineffective. One part was a literature review, and the second part was a survey of numerous institutions' experiences, including our own. A total of 85 cases of salivary gland cancers treated with chemotherapy were felt to be evaluable for this study. The overall response rate (complete and partial) was 42%. Although disease responded whether it was local, regional, or distant disease, there was a higher response rate in local-regional disease compared to distant metastases. Salivary gland cancers are definitely sensitive to chemotherapy drugs. This study reveals which drugs seem to be effective and provides some rational basis for future chemotherapy trials for salivary gland cancers. (Author abstract) (9 Refs)

9. CURRENT CONCEPTS IN OTOLARYNGOLOGY. MALIGNANT NEOPLASMS OF THE MINOR SALIVARY GLANDS.

Gates GA
Div. Otorhinolaryngology, Univ. Texas Health Science Center, San Antonio, TX, 78284
N Engl J Med; 306(12):718-722 1982

Pathology, diagnosis, evaluation, and treatment of malignant neoplasms of the minor salivary glands (MSG) are reviewed. Tumors of MSG have no known predisposing causes, with the single exception of the adenocarcinoma (ADC) of the nose and paranasal sinuses which affects woodworkers and furniture makers. Adenoid cystic carcinoma (ACC) is the most common malignant process of MSG, approx 50%. ADC is highly aggressive and may be divided into three clinicopathological forms: papillary, sessile, and alveolar-mucoid. The mucoepidermoid tumor may occur in low-, intermediate-, and high-grade histologic types. Clinical patterns and behavior of these neoplasms vary with the site of origin. MSG neoplasms are most common in the oral cavity, where the population of these glands is densest. ADC is more likely to arise in the upper nasal vault and ethmoid sinuses, whereas ACC occurs more often in the maxillary sinus. Fewer than 1% of laryngeal cancers arise from glandular elements. ACC and ADC constitute 50% of tracheal malignant processes. All carcinomas of MSG have poor prognosis. A majority of patients with MSG neoplasias do not have symptoms until the neoplasm has reached sufficient size to cause obstruction and bleeding. Surgical resection is the most effective treatment for localized MSG carcinoma of the head and neck. Treatment of recurrent disease is generally futile. Postoperative radiotherapy for all cases of ACC, ADC, and high-grade mucoepidermoid carcinoma is recommended, regardless of the histologic report, because of the poor prognosis of these lesions. (19 Refs)

10. HISTOGENESIS OF SALIVARY GLAND PLEOMORPHIC ADENOMA (MIXED TUMOR) WITH AN EVALUATION OF THE ROLE OF THE MYOEPITHELIAL CELL.

Dardick I, Van Nostrand AW, Phillips MJ
Canadian Tumour Reference Center, Ottawa Civic Hosp., Clinical Studies Unit Building, 60 Ruskin Ave., Ottawa, Ontario, Canada
Hum Pathol; 13(1):62-75 1982

Recent developmental, immunohistologic, and morphologic investigations suggest that the myoepithelial cell is of ectodermal origin, and a modified acinar or ductal cell possibly with a specific functional role. Autoradiographic findings indicate that reserve intercalated cells are not the principal source of new acinar or ductal cells but that both types of cells can be a self-renewing population. Thus, a neoplastically altered acinar or ductal cell, with the potential for expressing myoepithelial cell features, could be involved in the genesis of salivary gland pleomorphic adenomas. Such a hypothesis remains to be clarified. With respect to salivary gland pleomorphic adenomas, light microscopic and ultrastructural studies indicate that fully differentiated myoepithelial cells are not the principal cell found in the myxoid regions of these tumors. In these studies the major type of cell clearly has duct epithelial characteristics, frequently showing distinct evidence of squamous differentiation. In some pleomorphic adenomas, tumor cells ultrastructurally have varying degrees of epithelial characteristics with prominent intracytoplasmic microfilaments producing a myoepithelium-like appearance, whereas in other cases myxoid areas contain cells of a relatively undifferentiated type. The wide range of morphologic expression evident in pleomorphic adenoma would appear to be the result of a number of factors: the amount and distribution of mucopolysaccharide matrix formed by tumor cells in myxoid appearing ares, the expression of squamous, chondroid, or osseous metaplasia, and, ultrastructurally, the relative frequency of tumor cells with ductal, myoepithelial, myoepithelial-like, or poorly differentiated characteristics. It is proposed that this class of salivary gland tumor forms a spectrum with monomorphic adenoma and myoepithelioma at the extremes and a wide range of pleomorphic adenoma between, depending on the type and degree of gene expression that is coupled with neoplastic transformation. (66 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

11. MANAGEMENT OF PARANASAL SINUS SCHWANNOMAS.

Shugar MA, Montgomery WW, Reardon EJ
(c/o Montgomery), Massachusetts Eye and Ear Infirmary, 243 Charles St., Boston, MA, 02114
Ann Otol Rhinol Laryngol; 91(1):65-69 1982

Schwannomas arising in the nasal cavities and paranasal sinuses are rare entities, with only sporadic cases appearing in the world literature. The lesion most commonly arises in the ethmoid and maxillary sinuses, with two cases having been reported in the sphenoid sinus. There are no reported cases of frontal sinus schwannomas. Four illustrative cases are presented which demonstrate the clinical features. The radiological investigation should include plain films and anteroposterior and lateral polytomography. Computerized tomography appears to be useful in planning surgery. An operative approach is proposed which emphasizes a meticulous and complete removal of the lesion with preservation of adjacent structures and repair of any resultant dural defect. (Author abstract) (14 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

12. DOES PREOPERATIVE IRRADIATION INCREASE THE RATE OF SURGICAL COMPLICATIONS IN CARCINOMA OF THE HEAD AND NECK? A RADIATION THERAPY ONCOLOGY GROUP REPORT.

Marcial VA, Gelber R, Kramer S, Snow JB, Davis LW, Vallecillo LA
Radiation Oncology Div., Center for Energy and Environmment Res., Caparra Heights Station, San Juan, Puerto Rico
Cancer; 49(6):1297-1301 1982

This is a comparison of the rate of surgical complications in a group of patients with advanced but operable carcinoma of the head and neck who underwent surgery after preoperative radiotherapy (5,000 rad in 5 wk, 200 rad fractions, directed to the primary tumor area and neck) versus another group operated without prior irradiation. Both groups of patients formed part of a randomized prospective multiinstitutional trial of the Radiation Therapy Oncology Group (73-03). Of 229 patients who had planned operations, 88 (38%) developed some degree of surgical complications, and in 28 (12%) the complications were rated as severe. The most frequently reported complications were delayed healing and fistula formation each occurring in approx one-fourth of each of the two treatment groups. Carotid blow-out occurred in 5% or less of the cases. No significant statistical difference between treatment groups was noted for the overall complication rate or specific type of surgical complications. A trend was noted towards more complications in the preoperative group for patients with lesions in the oropharynx and supraglottic larynx. However, an opposite trend towards more complications in the no prior irradiation group was observed among patients with lesions in the oral cavity and hypopharynx. Surgical mortality and postoperative hospital stay were not significantly different between treatment groups. We conclude that preoperative irradiation for carcinoma of the head and neck, with the stated dose, followed by surgery in 4-6 wk, doses not substantially increase the rate of overall or specific type of surgical complications, surgical mortality or hospital stay versus those patients operated without prior irradiation. (Author abstract) (22 Refs)

13. RANDOMIZED TRIAL OF CONVENTIONAL VERSUS HIGH FRACTIONAL DOSE RADIATION THERAPY IN THE TREATMENT OF ADVANCED HEAD AND NECK CANCER.

Weissberg JB, Son YH, Percarpio B, Fischer JJ
Dept. Therapeutic Radiology, Yale Univ. Sch. Medicine, 333 Cedar St., New Haven, CT, 06510
Int J Radiat Oncol Biol Phys; 8(2):179-185 1982

The possibility of improving results of radiation treatment of advanced head and neck cancer by alteration in the fractionation of the radiation schedule was studied in 64 patients between 1973 and 1979. Thirty-one patients were randomized to receive 200 rad/day (Group A), and 33 were randomized to receive 400 rad/day (Group B). Twenty-six of the 31 patients of the Group A, and 30/33 of the Group B completed the treatment. The av age of patients was 62 yr in Group A and 66 yr in Group B. Majority of patients in both groups had Stage IV disease. A total dose to the primary lesion of approx 4,400 rad was administered to Group A patients; majority of Group B patients received a total dose of 6,600 rad. The av time from onset of treatment to max regression of the primary tumor was 7.5 wk in Group A and 5 wk in Group B. The av time for max nodal regression was 6.4 wk in Group A and 5.2 wk in Group B. Actuarial disease-free survival (DFS) for both groups is presented. The 5-yr DFS was approx 10% in both groups and showed no difference by statistical analysis. Wt loss occurred in 11 patients in Group A (6%) and in 11 patients in Group B (4%). In Group A peak mucosal reactions (PMR) were reached in wk 3 and 4 in the majority of patients, while in Group B mucositis reached max in most patients within 2 wk. PMR lasted for 2 wk or less in most patients in both groups; mucosal reaction was somewhat prolonged in Group A. Duration of epidermitis was equivalent in both groups. (29 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

14. CURRENT STATUS OF LARYNGECTOMEE REHABILITATION: I. RESULTS OF THERAPY.

Gates GA, Ryan W, Cooper JC, Lawlis GF, Cantu E, Hayashi T, Lauder E, Welch RW, Hearne E

Div. Otorhinolaryngology, Dept. Surgery, Univ. Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX, 78284

Am J Otolaryngol; 3(1):1-7 1982

Personal, biologic, speech, psychosocial, and economic recovery of 93 patients with laryngeal cancer who had undergone total laryngectomy (53), and in some cases, radical neck dissection (43), preoperative radiation therapy (15), postoperative radiation therapy (29), or postoperative chemotherapy (7) was studied. Fifty-three patients (40 men, 13 women; 41-75 yr old) were studied prospectively (PS) and 40 (39 men, 1 woman; 36-79 yr old) were studied retrospectively. Patients were studied preoperatively, rehabilitative measures were evaluated, and postoperative study was conducted 6 mo after completion of therapy. Tests included audiometric studies, speech evaluation, psychological tests, and esophageal manometry. At 6-mo evaluation, 12/47 reevaluated patients used esophageal speech as the dominant mode of communication, 16/47 the electrolarynx, and the rest either wrote or signed. Overall rehabilitation was successful in 26/47 and unsuccessful in 21/47. The proportion of patients in the PS group who acquired esophageal speech was 26%, while that for the RS group was 62%. The difference was attributed to the more aggressive treatment that today's laryngectomee is likely to receive; such persons are more likely to have adverse side effects from therapy, and, correspondingly, more functional difficulties. Because high-risk and poor-outcome patients tend to be excluded from retrospective studies, the selection process artificially improves the success rate and biases the conclusions. The results demonstrate that rehabilitative needs of the laryngectomee are not being met successfully with traditional methods. (13 Refs)

15. CURRENT STATUS OF LARYNGECTOMEE REHABILITATION: II. CAUSES OF FAILURE.

Gates GA, Ryan W, Cantu E, Hearne E

Div. Otorhinolaryngology, Dept. Surgery, Univ. Texas Health Science Center, 77030 Floyd Curl Drive, San Antonio, TX, 78284

Am J Otolaryngol; 3(1):8-14 1982

Records were reviewed of 47 laryngectomees who were evaluated preoperatively and again 6 mo after completion of therapy for their dominant mode of communication and rehabilitation success. Twelve esophageal speakers (ES) and 35 non-esophageal speakers (NES: used electrolarynx, writing or signing) were examined. Twenty-six patients were considered successful in terms of rehabilitation, return to preoperative lifestyle, and adequate psychological adjustment to disability; 21 patients were considered unsuccessful subjects. ES and NES are discussed with respect to personal characteristics, treatment and outcomes, speech rehabilitation, psychosocial data, and economic data. The most important adverse factors are lack of desire to learn to communicate orally or adjust to the effects of cancer treatment and lack of vigor to participate in a rehabilitation program. Other adverse factors include postoperative radiotherapy, dysphagia, depression, and extent of surgery. Positive factors which promote rehabilitation success but do not affect success when absent are personality and preoperative phonation. Bivalent factors, which may contribute either to success or to failure include spouse, age, hearing, and speech therapy. Irrelevant factors are intelligence, education, sex, preoperative counseling, radical neck dissection, and electrolarynx use. (16 Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

16. MORTALITY IN WOMEN TREATED BY HYPERTHYROIDISM.

Hoffman DA, McConahey WM, Diamond EI, Kurland LT

Environmental Epidemiology Branch, NCI, Rm. 3C-07, Landow Bldg., Bethesda, MD, 20205

Am J Epidemiol; 115(2):243-254 1982

To evaluate the late effects of exposure to radioiodine (131I), a retrospective cohort study was conducted of women treated for hyperthyroidism at the Mayo Clinic, Rochester, Minnesota, from 1946 through 1964. Cause of death was determined in 1,005 women treated with 131I and in 2,141 women surgically treated. No increased risk of total mortality was observed for the 131I-treated women (relative risk = 1.0). There were no increased risks for the major causes of mortality (cancer, cardiovascular-renal disease or cerebrovascular lesions) in the 131I-treated women; in addition, there were no increased risks for site-specific cancer mortality. Several hypotheses are presented to suggest reasons for the lack of association between 131I exposure and increased cancer mortality. (Author abstract) (41 Refs)

17. THE CHINESE EPIDEMIOLOGICAL APPROACH OF NASOPHARYNGEAL CARCINOMA RESEARCH AND CONTROL.

De-The G
CNRS, Faculty of Medicine A. Carrel, Rue Guillaume Paradin, F. 69372 Lyon CEDEX 2, France

Yale J Biol Med; 54(1):33-39 1981

Nasopharyngeal carcinoma (NPC), the major cancer killer in Cantonese Chinese, represents one of the three cancer research priorities in China. Apart from some fundamental research projects on the Epstein-Barr virus (EBV), their main efforts are epidemiologically and clinically oriented. Major surveys in GuangDong and GuangXi provinces showed that high EBV/IgA/VCA serum levels can detect NPC at an early stage of the disease. Characterization of 'precancerous lesions' in the nasopharynx and among the EBV/IgA positive individuals is in progress in the Zangwu county of the GuangXi Autonomous Region. Preventive anti-viral intervention in these individuals is being discussed. Search for genetic and environmental chemical carcinogens is also carried out. This Chinese epidemiological approach complements well the fundamental Western studies on EBV and NPC. (Author abstract) (21 Refs)

18. RECENT ADVANCES IN RADIATION THERAPY OF HEAD AND NECK CANCER.

Seagren SL
Dept. Radiology, Univ. Hosp., 225 W. Dickinson St., San Diego, CA, 92103

Head Neck Surg; 4(3):227-232 1982

Recent developments in radiotherapy (RT) of cancers of the head and neck (HNC) are reviewed. Development of megavoltage radiation allows higher doses of radiation to be delivered at greater tissue depths and with better control than were previously possible. External beam radiation is effective in controlling clinically apparent as well as subclinical HNC. A combination of RT and surgery can be effective in the control of more advanced cancer. RT is more effective in controlling relatively active cells in the periphery and margins of tumors, while surgery is effective in removing relatively hypoxic and inactive, but malignant cells at the core of the tumors. Preoperative RT (PRT) has not been proven more effective in tumor control than postoperative RT. PRT can, however, render unresectable tumors resectable or even make resection unnecessary. The combination of RT and surgery can in certain circumstances allow modification of surgical procedures. Interstitial implantation of radiation sources permits delivery of higher radiation doses directly to the tumor, while reducing the dose to normal tissue. New implantation devices and use of the afterloading technique provide better control over dose rates and reduced hazard to medical personnel. The oxygen effect can be overcome by use of particle therapy, hypoxic sensitizers, or hyperthermia. Combinations of RT and chemotherapy are currently underway. (28 Refs)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—361-847/122

AUTHOR INDEX WITH CITATION NUMBERS

Alberti PW 6
Aurback GD 7
Beatrice F 5
Brennan MF 7
Bussi M 5
Cantu E 14
Cantu E 15
Cavallo GP 5
Connelly RR 3
Cooper JC 14
Cortesina G 5
Dardick I 10
Das S 3
Davis LW 12
De-The G 17
Di Fortunato V 5
Diamond EI 16
Doppman JL 7
Dykun R 6
Ebbesen P 3
Effron MZ 1
Feldman M 2
Fischer JJ 13
Fletcher GH 2
Gates GA 14
Gates GA 15
Gates GA 9
Gelber R 12
Hayashi T 14
Hearne E 14
Hearne E 15
Hoffman DA 16
Johns ME 8
Kramer S 12
Krudy AG 7
Kurland LT 16
Lauder E 14
Lawlis GF 14
Levine PH 3
Marcial VA 12
Marx SJ 7
McConahey WM 16
Mestre M 3
Middleton M 3
Montgomery WW 11
Morra B 5
Percarpio B 13
Phillips MJ 10
Poggio E 5
Reardon EJ 11
Rendine S 5
Ryan W 14
Ryan W 15
Sartoris A 5
Seagren SL 18
Shugar MA 11
Snow JB 12
Son YH 13
Spiegel A 7
Stark P 4
Suen JY 8
Vallecillo LA 12
Van Nostrand AW 10
Weissberg JB 13
Welch RW 14

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

U.S.MAIL

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). CANCERGRAMS are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

CT 11/82/08

NCI/ICRDB/CT11 82/08 PB82-938508

ICRDB CANCERGRAM

INTERNATIONAL CANCER RESEARCH DATA BANK

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/08 AUGUST, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
SEP 30 1982
U. S. GOVT. PUBS.
DEPOSITORY 376

VISIT THE ICRDB EXHIBIT AT THE INTERNATIONAL CANCER CONGRESS IN SEATTLE, SEPTEMBER 8-15: MEET THE ICRDB STAFF, FIND OUT WHAT'S NEW, AND GET A FREE CANCERLINE SEARCH ON THE SPOT.

In this issue:

- **ORAL CAVITY AND OROPHARYNX TUMORS** 1-3
- **PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS** 4-5
- **HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS** 6-7
- **THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS** 8-12
- **OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS** 13
- **BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS** 14
- **MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES** 15
- **PROGRESS IN RECONSTRUCTION AND REHABILITATION** 16
- **SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS** 17-18

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

ORAL CAVITY AND OROPHARYNX TUMORS

1. THE EFFECTS OF UREA TREATMENT IN COMBINATION WITH CURETTAGE IN EXTENSIVE LIP CANCERS.

Danopoulos ED, Danopoulou IE, Besbeas S, Ramantanis G
Rigillis 26, Athens, Greece
J Surg Oncol; 19(3):127-131 1982

Thirty cases of lip cancer in 28 patients, 23 of which were extensive or very extensive, were treated with local urea injections in combination with curettage. Out of the 30 cases there were 26 squamous cell carcinomas, three basal cell carcinomas extending to the mucosa from the skin of the lips, and one adenocarcinoma of the mucosa of the interior surface of the upper lip. This treatment was effective in all our patients. Recurrences appeared in four patients. These were easily treated in three out of the four patients who returned for treatment, by the same method. In three cases metastases appeared in the lymph nodes of the neck, which were surgically treated. (Author abstract) (12 Refs)

2. TUMORAL RECURRENCE IN CARCINOMA OF THE LIP: SALVAGE RETREATMENT BY CURIETHERAPY.

Nguyen TD, Douchez J, Combes D, De Lafontan B, Daly N, Combes PF
Institut Jean Godinot, 1, ru du general Koenig, BP 171, 51056 Reims Cedex, France
Ann Radiol (Paris); 25(3):207-209 1982

Authors record 31 observations of local recurrences arising from squamous cell carcinoma of the lip and retreated by curietherapy. Comparison is made between this failure group (Group I) and a series of 116 patients simultaneously treated by curietherapy (Group II), with a curative intent. Tumoral recurrences occurred in 16 cases after external radiotherapy, in 11 cases after surgery, and in 4 cases after curietherapy. Clinical staging reveals a 30% incidence of T3 T4 among Group I patients while only a 7% incidence is observed in Group II patients. Nevertheless, local salvage by curietherapy is obtained in 90% of all cases. Patients referred for treatment of local recurrence present a threefold rate of later cervical metastatic nodes (30%, 6 patients/31). Survival is not modified but cosmetic results are seriously aggravated after re-treatment with constant fibrosis. (Author abstract) (5 Refs) (In FRE)

3. CYTOLOGICAL METHOD IN DETERMINATION OF THE DEGREE OF DIFFERENTIATION OF SQUAMOUS CELL CARCINOMA OF THE MOUTH.

Petrova AS, Lukina TA, Kondrat'eva TT, Mardaleishvili KM, Glazkova TG, Spiridonova TA
All-Union Cancer Res. Center, Moscow, USSR
Lab Delo; (2):79-83 1982

The efficacy of cytological method for the determination of the degree of cell differentiation was studied in 38 patients with histologically confirmed diagnosis of squamous cell carcinoma (SCC) of the mouth mucosa. A total of 33 cytological signs were analyzed. Group 1 included such quantitative signs as the number of cells with vacuolization of the nucleus and cytoplasm, number of 'nude' nuclei, number of nuclei with hypertrophic nucleoli, and the number of cells with completely keratinized cytoplasm and irregularly shaped nuclei. Group 2 included such qualitative signs as the degree of cell polymorphism, localization and staining of cell and nuclei, presence or absence of cells with hypertrophy of the nucleoli. Group 3 included such background signs as the presence of intact squamous epithelium, histoid elements, fibroblasts, plasmacytes, macrophages, and giant multinuclear cells. Comparative cytological analysis showed that 8 patients had highly differentiated SCC, 18 had mildly differentiated SCC, and 12 had poorly differentiated SCC. (5 Refs) (In RUS)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

4. CARCINOMA OF THE NASAL SEPTUM: EXPERIENCE WITH 85 CASES.

Beatty CW, Pearson BW, Kern EB
Section Publications, Mayo Clinic, 200 First St. SW, Rochester, MN, 55905
Otolaryngol Head Neck Surg; 90(1):90-94 1982

A review of 85 patients (57 males, 28 females; 22-81 yr old, mean of 57.3 yr) with carcinoma of the nasal septum is presented. Patients were followed up for a mean of 9.5 yr and a median of 5.7 yr. The most common symptoms included nasal airway obstruction, epistaxis, rhinorrhea, and nasal pain; seven patients were asymptomatic. Nine patients had histories of chronic rhinosinusitis and five had histories of chronic nasal allergies. Predominant tumors were squamous cell carcinoma (58), adenocarcinoma (12), and malignant melanoma (7). Lesions were anterior in 55 patients, posterior in 16, and unspecified in 14. Most of the squamous cell carcinomas were located anteriorly while most of the adenocarcinomas were posterior or undefined. Obstruction occurred in 12/16 patients with posterior lesions and in 18/55 with anterior lesions. Seventeen patients had other malignancies: 6 cancers of the larynx, 2 bronchogenic carcinomas, 2 breast carcinomas, 4 skin cancers, and 1 each of gastric carcinoma, colon carcinoma, and chronic lymphocytic leukemia. Twenty-five patients had metastases to the sinuses, brain, or orbit; cervical nodes; or lung or abdomen. Initial treatment of 60 patients was excision alone; 19 others had excision plus radiotherapy. Etiologic factors of carcinoma of the nasal septum are discussed. Treatment of choice is wide surgical excision. Of the three major cell types, malignant melanoma had the poorest prognosis. (11 Refs)

5. SQUAMOUS CELL CARCINOMA OF THE PYRIFORM SINUS.

El Badawi SA, Goepfert H, Herson J, Fletcher GH, Oswald MJ
(c/o Goepfert) Dept. Head and Neck Surgery, Univ. Texas System Cancer Center, M.D. Anderson Hosp. and Tumor Inst., Houston, TX, 77030
Laryngoscope; 92(4):357-364 1982

This is a review of 418 patients with cancer of the pyriform sinus who had complete treatment at University of Texas M D Anderson Hospital, treated over a 28-yr time span. Treatment modalities used included radiation therapy, surgery, and planned combined treatment, primarily in the form of surgery and postoperative radiation therapy. Superficial lesions, with no impairment of laryngeal motility, are suitable for irradiation therapy planned for cure. (The policies of treatment have changed throughout the years). Analysis is made comparing the results of the larger groups of patients treated by surgery only, or surgery followed by postoperative radiation therapy. There is a significant lower incidence of failure above the clavicle in the combined treatment group, and a better 5-yr survival. Rate of recurrences and the specific sites of failure above the clavicles are discussed, as well as the means of preventing such. The causes of death between 2 and 5 yr are presented. (Author abstract) (20 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

6. PRELIMINARY RESULTS OF A PREOPERATIVE POLYCHEMOTHERAPY PROTOCOL IN CARCINOMAS OF THE PHARYNGOLARYNGEAL. ONCOVIN, METHOTREXATE, AND BLEOMYCIN.

Laccourreye H, Brasnu D, Beutter P, Chabolle F, De Braquilanges E, Strunski W, Gehanno P, Andre P
Service O.R.L. et de Chirurgie cervico-faciale, Hopital Laennec, 42, rue de Sevres, F 75007 Paris, France
Ann Otolaryngol Chir Cervicofac; 98(9):411-424 1981

A series of 213 patients with squamous carcinoma of the piriform sinus, (40.3%) pharyngolaryngeal junction (23.5%) and larynx (36.2%) were given preoperative combination chemotherapy of oncovin, methotrexate, and bleomycin (OMB). Patients all had total or partial laryngectomy followed by radiotherapy. Most patients (161/213) received three treatments of OMB. All sites included the tumor responses to OMB was 32%. Most often the macroscopic tumor regression was less than 50%. The complete macroscopic disappearance of the tumor was rare and only occurred in 1.5% of the cases. The best responses occurred in the pharyngolaryngeal junction (36%) compared to 31.4% in the piriform sinus and 29.9% in the larynx. Independent of tumor site, continued tumor growth occurred in only 4% of the cases treated with OMB. All sites included tumor response was independent of the degree of nodal involvement, but tumor response was better when lymph nodes were histologically free of disease (38.7% tumor response without nodal involvement compared with 26.7% with nodal involvement). There was no significant difference in 1 yr survival rates between those patients in whom there was a tumor response and those in whom tumor size remained the same. (7 Refs) (In FRE)

7. THE TREATMENT OF SUBGLOTTIC HEMANGIOMAS OF INFANTS WITH PREDNISONE.

Sadan N, Sade J, Grunebaum M
Dept. Pediatrics, Meir General Hosp., Sapir Medical Center, Kfar-Saba, Israel
Int J Pediatr Otorhinolaryngol; 4(1):7-14 1982

Five infants (1 male, 4 female; 6 wk-13 mo old at initial treatment) with stridor and respiratory distress were examined by direct laryngoscopy and found to have subglottic hemangiomas. by direct laryngoscopy. All the infants presented with stridor and respiratory distress. Three patients had hemangiomas on other parts of the body: neck, face and mouth, or scalp and chest. Tracheostomy was performed in one child. The only other treatment was with prednisone (PRE; 3-5 mg/kg/day for 2-3 wk then gradually tapered thereafter for 8 wk). The patients were followed up for 1.5-10 yr. In all patients, stridor and dyspnea disappeared within the first wk of treatment. In two patients symptoms recurred shortly after completion of the first course of PRE, but subsided rapidly a few days after beginning the second course. In three patients, symptoms did not recur, even when the patients had episodes of upper respiratory infection. Enlargement of the subglottic region was observed in two patients on control roentgenograms of the neck after treatment as compared with pretreatment films. The only side effect was moon-facing, which subsided following completion of therapy. PRE, when begun early, may reduce the need for tracheostomy and may permit complete recovery with proper dosage and length of treatment. (28 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

8. OCCULT PAPILLARY CARCINOMA OF THE THYROID.

Schindler AM
Centre de Cytologie, Bd de la Cluse 51, CH-1211 Geneve 4 Switzerland
Schweiz Med Wochenschr; 112(10):339-344 1982

The clinical and morphological aspects of occult sclerosing carcinoma of the thyroid are presented on the basis of a 10-yr review of the surgically removed thyroids in Geneva and from the study of thyroid glands obtained from 133 consecutive autopsies. The 15 cases found in the surgical material represented 7.7% of all malignant thyroid tumors and one fifth of the papillary carcinomas. Occult tumors are found at a mean age of 46.6 yr and predominate in women. Clinically, two thirds presented as nodular goiters, two cases as primary hyperplasia and one as primary hyperparathyroidism. Three out of 15 cases presented clinically with a cervical lymph node metastasis. Treatment was conservative in all cases and consisted of subtotal thyroidectomy and/or elective lymphadenectomy, followed by medical suppression of TSH. Follow-up in 11 cases showed a single recurrence in a cervical lymph node, while the 10 cases have been disease free for 4 to 13 yr. In the autopsy series three thyroid glands (2.3%) contained occult tumors, two of which were microcarcinomas. The Genevan series compares with other European and American studies but differs from the much higher incidence in the Japanese. (Author abstract) (30 Refs) (In FRE)

9. INTRA-ARTERIAL CISPLATIN TREATMENT OF ADENOID CYSTIC CARCINOMA.

Sessions RB, Lehane DE, Smith RJ, Bryan RN, Suen JY
Dept. Otolaryngology, Baylor Coll. Medicine, 6501 Fannin, Houston, TX, 77030
Arch Otolaryngol; 108(4):221-224 1982

Adenoid cystic carcinoma (ACC) is unique among salivary gland tumors in both its natural history and in its response to nonsurgical treatment methods (ie, radiation and chemotherapy). The chemotherapeutic agent, cisplatin, seems to be unique in its ability to affect ACC. It might be that ACCs of the minor salivary glands are especially vulnerable to the intra-arterial method of administering this drug, because there are accessible feeding vessels to most locations in which these tumors occur. We have treated four patients with advanced ACC with intra-arterial cisplatin. The responses suggest that this method may be a useful adjunct in the management of this tumor both as a preoperative and as a palliative measure. (Author abstract) (16 Refs)

10. PLEOMORPHIC SALIVARY GLAND ADENOMAS OF THE PARAPHARYNGEAL SPACE: REVIEW OF NINE CASES.

Warrington G, Emery PJ, Gregory MM, Harrison DF
Royal Natl. Throat, Nose and Ear Hosp., Gray's Inn Road, London WC1X 8DA, England
J Laryngol Otol; 95(2):205-218 1982

Nine cases of pleomorphic salivary gland adenomas of the parapharyngeal space are reviewed. In the discussion which follows we show that five of these tumors were situated medial to the superior constrictor muscle and arose within pharyngeal mucosa. We also outline our views on the management of pleomorphic salivary gland adenoma of the parapharyngeal space with particular reference to biopsy, surgical excision and postoperative radiotherapy. Pleomorphic salivary gland adenoma of the parapharyngeal space is a well-recognized clinical entity. There have been many contributions to the subject in the literature but discussion and debate still continue about its pathogenesis and management. In this paper we add our contribution to the subject in the light of personal experience of nine patients with histologically proven pleomorphic salivary gland adenomas seen on the Professorial Unit of the Royal National Throat, Nose and Ear Hospital, London. (Author abstract) (8 Refs)

11. COMPUTED TOMOGRAPHY IN THE DIAGNOSIS OF PAROTID GLAND TUMOURS.

Golding S
Royal Marsden Hosp., Sutton, Surrey, England
Br J Radiol; 55(651):182-188 1982

Twenty patients with swelling of the parotid region have been examined by computed tomography (CT). CT correctly demonstrated a mass in 11 patients and correctly excluded a mass in 9 patients. Five patients had primary parotid neoplasms, all of which showed higher attenuation values than normal salivary tissue. The other masses included cystic hygroma, branchial cyst, carotid sheath hamartoma and metastases in the region of the gland. Neither intravenous nor intraglandular contrast medium was necessary for diagnosis. CT is superior to sialography in demonstrating the total extent of a mass, particularly when there is involvement of the deep lobe of the gland or the parapharyngeal space. The appearance at CT following sialography with oily contrast media suggest that oil persists in the gland despite apparent complete clearing at sialography. CT should be regarded as the investigation of choice in patients with clinical features suggesting a mass in the region of the parotid. (Author abstract) (12 Refs)

12. SIGNIFICANCE OF ZINC AND COPPER DETERMINATION IN MALIGNANT DISEASES OF THYROID.

Wiesener W, Baldauf K, Schicke B
(c/o Baldauf) I. Chirurgische Klinik, Stadtisches Klinikum Berlin-Buch, Wiltbergstrasse 50, 1115 Berlin, E. Germany
Z Aerztl Fortbild; 76(1/2):17-19 1982

Zn and Cu were determined in 20-50 mg sample of hair removed from the neck of healthy women (HW) and female patients (20-75 yr old) with follicular thyroid cancer (TC), papillary TC, undifferentiate TC, mammary cancer (MC), cervical cancer (CC), gastric cancer (GC), colon cancer (COC), rectal cancer (RC), and TC and malignant melanoma (MM) of the skin. Activated neutron analysis (NAA) was used for determination of Zn and Cu expressed in ppm; details of procedure were described. HW had Zn values of 129.5 ppm and Cu values of 12.2 ppm. Zn values for MC, CC, RC, TC, and MM were 178.9-192.4 ppm; for GC and COC were 148.0 ppm and 144.1 ppm, respectively. The values of Cu were elevated in MC, CC, GC, COC , and TC, while the values for RC and MM were 14.3 ppm and 12.2 ppm, respectively. When TC were divided by histologic type to epithelial, papillary and undifferentiated, Zn values were 192.4, 190.6, and 128.8 ppm, while Cu values were 22.0, 19.6, and 19.6 ppm, respectively. Such determination can be performed quickly, but for economic reasons cannot be done routinely. (23 Refs) (In GER)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

13. HEMANGIOPERICYTOMA OF THE ORBIT: A CLINICOPATHOLOGIC STUDY OF 30 CASES.

Croxatto JO, Font RL
(c/o Font) Cullen Eye Inst., Baylor Coll. Medicine, 1200 Moursund St., Houston, TX, 77030
Hum Pathol; 13(3):210-218 1982

The clinical and pathologic features of 30 orbital hemangiopericytomas were reviewed. An effort was made to determine the clinicopathologic characteristics that may correlate with the biologic behavior. Histopathologic criteria evaluated included degree of cellularity, nuclear atypia, mitotic activity, tumor size, and the presence of hemorrhage and necrosis. Histopathologically, 16 tumors were classified as benign, 5 as borderline, and 9 as malignant. Follow-up information was obtained in 27 cases (mean duration of follow-up period was 5 1/2 yr). Eight tumors recurred (30%). Five patients died, four with widespread metastases (15%) and one of unrelated causes. Tumors that recurred or metastasized were distributed among all three histologic groups. The interval between the onset of symptoms and metastasis for three of the four lethal tumors was 31 yr, 28 yr, and 8-1/2 yr; in the fourth case it was unknown. For the entire series, the 5-yr actuarial survival rate was 89%. Although the number of cases is too small to serve as a basis for firm conclusions, the lack of unequivocal correlation between the histologic features and clinical behavior is consistent with the unpredictable behavior of this neoplasm, as concluded by other investigators. Because of the apparent circumscription of most of these tumors, complete surgical excision rather than exenteration is recommended. Metastasis usually develops late in the clinical course of the disease, indicating that long-term follow-up studies are required before a cure can be assumed. (Author abstract) (34 Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

14. AMELOBLASTOMA OF THE JAWS: A 12 YEAR REVIEW OF THE MCGILL EXPERIENCE.

Fitzgerald GW, Frenkiel S, Black MJ, Rochon L, Baxter JD
(c/o Frenkiel) Dept. Otolaryngology, Jewish General Hosp., 3755 Cote St. Catherine Road, Montreal, P.Q., H3T 1E2, Canada
J Otolaryngol; 11(1):23-28 1982

A retrospective study was conducted of 16 patients (10 males and 6 females) treated for ameloblastoma in three teaching hospitals. The tumor originated in the mandible in 13 (81.3%) patients and in the maxilla in 3 (18.7%). The most common presenting sign was a painless, slowly growing mass of the lower jaw, usually involving the molar or ramus regions. Surgery was the treatment of choice in 15 cases, while the remaining patient underwent surgery and postoperative radiotherapy. None of the patients developed metastases. Examination of the results and other reported cases indicates that radiotherapy and chemotherapy are ineffective in ameloblastoma therapy. The one patient who underwent radiotherapy post surgery suffered a recurrence 26 yr later. Wide surgical excision with a margin of normal tissue is the treatment of choice. Tooth embryology and its relation to ameloblastoma, clinical manifestations, pathology, radiologic features, and treatment philosophy are reviewed. (20 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

15. COMBINED THERAPY FOR VASCULAR LESIONS OF THE HEAD AND NECK WITH INTRA-ARTERIAL EMBOLIZATION AND SURGICAL EXCISION.

Biller HF, Krespi YP, Som PM
Dept. Otolaryngology, Mount Sinai Medical Center, One Gustave Levy Place, New York, NY, 10029
Otolaryngol Head Neck Surg; 90(1):37-47 1982

Cases of 10 patients (6 males, 4 females; 6-65 yr old) with large extracranial arteriovenous malformations (AVM) are presented in order to illustrate the value in selected cases of preoperative embolization followed by total excision. Clinical diagnosis should be confirmed by selective angiography. Tumor excision was performed immediately after embolization in some patients and 1 wk later in others. One patient had a metastatic renal cell carcinoma that was similar to an AVM malformation both angiographically and clinically; embolization allowed resection with less blood loss. (18 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

16. RESULTS OF 164 MANDIBULAR RECONSTRUCTIONS.

Yoel J, Marino H, Pilheu FR, La Ruffa H, Gonzalez Aguilar O, Curutchet P
Servicio de Cirugia de Cabeza y Cuello, Hospital Guemes, Buenos Aires, Argentina
Rev Argent Cir; 41(5):207-218 1981

In a 30-yr period, 164 mandibular reconstructions (RC) were performed; 94 were performed with autografts (AG) and 70 with inert material (IM). The RC was delayed in 41 of the patients. The best osseous AG is fragmented spongy bone removed from coxal bone; such bone resists infection and has good osteogenic properties. The best time for the RC is immediately after resection, because bland tissue is abundant and well irrigated. Inoxidable steel mesh was the best-tolerated IM, and Ti mesh was useful in the RC of anterior sections. In partial RC, silastic material can be used and is well tolerated. The osseous AG was used immediately in 68 of the patients, 36 of whom had ameloblastoma and 5 of whom had fibrohistiocytoma; fewer patients had other mandibular lesions. Follow-up was performed 2-30 yr after RC. Of the 68 patients treated immediately with osseous AG, 46 had excellent results, 22 had complications (eg, infection in 7, reabsorption in 8) including 1 death immediately following surgery, and 2 died due to relapse of malignant tumors. Delayed RC with the AG was performed on 26 patients, 3 of whom died within 3 yr due to relapse of malignant tumors. The IM was used in the 70 RC, 55 of which were immediate; 40 were complete RC of the mandibular arc. Techniques, bone sources, and different IM were discussed. (13 Refs) (In SPA)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

17. LEUCOPLAKIA OF THE ORAL CAVITY, SMOKING AND ARYLHYDROCARBON-HYDROXYLASE INDUCIBILITY.

Andreasson I., Korsgaard R, Trell E, Bjorlin G, Mattiasson I, Trell L
Dept. Oto-Rhino-Laryngeology, Univ. Lund, Malmo General Hosp., S 21401 Malmo, Sweden
Postgrad Med J; 58(677):138-141 1982

In a consecutive series of 53 cases of oral leukoplakia, smoking history, oro-dental status and arylhydrocarbon-hydroxylase (AHH) inducibility were assessed. There was an increased association of leukoplakia with smoking, particularly in the male cases, but no remarkable findings as to dental status. Overall, there was a slightly higher frequency of cases with high AHH inducibility than expected from a normal control population. This difference was confined to smokers, where there was a statistically highly significant over-representation of high AHH inducibility and under-representation of low AHH inducibility. The figures in the non-smoking patients were close to the expected. (Author abstract) (32 Refs)

18. MULTIPLE PRIMARY CARCINOMAS OF THE HEAD, NECK, AND LUNG.

Marks PH, Schechter FG
(c/o Schechter), Louisiana State Univ. Medical Center, Room 753, 1542 Tulane Ave., New Orleans, LA, 70112
Ann Thorac Surg; 33(4):324-332 1982

Case reports of 8,956 patients with primary carcinomas of the head and neck, or lung, or both sites were reviewed. Eighty five patients had tumors of both the lungs and the head and neck. Bronchogenic carcinoma preceded the head and neck tumor in 8 patients, the two primaries occurred synchronously in 7, and the head and neck malignancy preceded the lung tumor in 70 patients. Case histories, pathology, social history, time interval between lesions, treatment, and survival were reviewed. A long history of heavy cigarette smoking and alcohol intake was evident in many of these patients. Treatment of synchronous malignancies poses a therapeutic dilemma: which tumor to treat first. In general, since bronchogenic carcinoma is more lethal, it should be treated first unless the airway is obstructed by a laryngeal tumor. If possible, resection should be accomplished, then after a reasonable recuperation period, definitive therapy should be directed at the head and neck cancer. All patients seen with carcinomas of the head and neck should be carefully evaluated for the presence of a bronchogenic carcinoma. Each tumor should be treated aggressively since the occurrence of both bronchogenic carcinoma and head and neck carcinoma are almost always multiple primaries and not metastases. (25 Refs)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—361-847/126

AUTHOR INDEX WITH CITATION NUMBERS

Andre P. 6
Andreasson L. 17
Baldauf K. 12
Baxter JD. 14
Beatty CW. 4
Besbeas S. 1
Beutter P. 6
Biller HF. 15
Bjorlin G. 17
Black MJ. 14
Brasnu D. 6
Bryan RN. 9
Chabolle F. 6
Combes D. 2
Combes PF. 2
Croxatto JO. 13
Curutchet P. 16
Daly N. 2
Danopoulos ED. 1
Danopoulou IE. 1
De Braquilanges. 6
De Lafontan B. 2
Douchez J. 2
El Badawi SA. 5
Emery PJ. 10
Fitzgerald GW. 14
Fletcher GH. 5
Font RL. 13
Frenkiel S. 14
Gehanno P. 6
Glazkova TG. 3
Goepfert H. 5
Golding S. 11
Gonzalez Aguila. 16
Gregory MM. 10
Grunebaum M. 7
Harrison DF. 10
Herson J. 5
Kern EB. 4
Kondrat'eva TT. 3
Korsgaard R. 17
Krespi YP. 15
La Ruffa H. 16
Laccourreye H. 6
Lehane DE. 9
Lukina TA. 3
Mardaleishvili. 3
Marino H. 16
Marks PH. 18
Mattiasson I. 17
Nguyen TD. 2
Oswald MJ. 5
Pearson BW. 4
Petrova AS. 3
Pilheu FR. 16
Ramantanis G. 1
Rochon L. 14
Sadan N. 7
Sade J. 7
Schechter FG. 18
Schicke B. 12
Schindler AM. 8
Sessions RB. 9
Smith RJ. 9
Som PM. 15
Spiridonova TA. 3
Strunski W. 6
Suen JY. 9
Trell E. 17
Trell L. 17
Warrington G. 10
Wiesener W. 12
Yoel J. 16

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va 22161

OFFICIAL BUSINESS

Penalty for Private Use. $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

CT11 82/09

NEWARK PUBLIC LIBRARY

NCI/ICRDB/CT11 82/09

PB82-938509

OCT 28 1982

U. S. GOVT. PUBS.
DEPOSITORY 376

INTERNATIONAL CANCER RESEARCH DATA BANK

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/09

SEPTEMBER, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

PDQ (PROTOCOL DATA QUERY) - A NEW ONLINE CANCER DATABASE WILL BE AVAILABLE THIS FALL! PDQ LISTS THERAPY PROTOCOLS PLUS ADDRESSES AND PHONE NUMBERS OF CLINICAL INVESTIGATORS. CONTACT ICRDB FOR DETAILS.

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS 1-2
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS 3-4
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS 5-6
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS 7-12
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS 13
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS 14
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES 15-16
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS 17-20

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 3173/2:

ORAL CAVITY AND OROPHARYNX TUMORS

1. RESULTS AND PROGNOSTIC FACTORS IN SALVAGE SURGERY FOR SQUAMOUS CARCINOMAS OF THE TONGUE.

Pittam MR, Thornton H, Palmer BV, Chapman P, Shaw HJ
Head and Neck Unit, Royal Marsden Hosp., Fulham Road, London, England
Br J Surg; 69(4):188-190 1982

Fifty-six patients who had undergone salvage surgery for residual or recurrent squamous carcinomas of the tongue between 1967 and 1977 were reviewed. Failure to obtain operative clearance led to certain local recurrence. The tongue or cervical lymph nodes were involved in 27 of the 28 patients who died with recurrent tumor. The overall age-corrected actuarial postoperative survival was 45.1% at 2 yr and 35.3% at 5 yr. Survival was reduced in women and patients aged over 60 yr at operation, and in patients whose tumors were at first biopsy moderately or poorly differentiated, classified as Stage III or IV at initial presentation or preoperatively, or recurred within 6 mo of completing primary treatment. (Author abstract) (12 Refs)

2. SQUAMOUS CELL CARCINOMA OF THE UVULA AND THE SOFT PALATE. AN ANALYSIS OF 71 CASES SEEN AT THE BERGONIE FOUNDATION FROM 1971 TO 1978.

Richaud P, Petriat B, Pigneux J, Faucher A, Touchard J, Renaud-Salis J
Fondation Bergonie, 180, rue de Saint-Genes, F 33076 Bordeaux, France
Ann Otolaryngol Chir Cervicofac; 98(12):621-624 1981

Of 71 patients with squamous cell carcinoma of the uvula and the soft palate, 14 were excluded from the follow-up analysis either because of death during treatment or because of treatment received elsewhere. A total of 56 patients (55 men and 1 woman) received treatment and follow-up surveillance. In 31 cases, the cancer was well differentiated. In four cases, the cancer was moderately differentiated and in eight cases, the cancer was undifferentiated. For 14 patients, the degree of differentiation could not be determined. In 37 cases there was moderate infiltration and in 6 cases there was significant tumor infiltration. Ganglions were clinically pathologic in 23 patients on initial examination. All patients received radiotherapy. Initial complete remission which was assessed 6 wk after the end of radiotherapy was observed in 50/56 patients. There were 12 cases of initial failure of which 5 patients benefitted from secondary surgery. The uncorrected actuarial 5-yr survival of the 56 patients was 30%. The corrected 3-yr survival rate was 70%. Among the 56 patients treated, 20 were alive with a mean survival of 46 mo, and 36 had died. Only 11 died of primary cancer whereas 13 died of causes separate from local recurrence and 11 died of secondary cancers. (no Refs) (In FRE)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

3. AN IMMUNOHISTOCHEMICAL STUDY OF NASOPHARYNGEAL NEOPLASMS USING KERATIN ANTIBODIES. EPITHELIAL VERSUS NONEPITHELIAL NEOPLASMS.

Madri JA, Barwick KW
(c/o Barwick) Dept. Pathology, Yale Univ.Hosp., 310 Cedar St., New Haven, CT, 06510
Am J Surg Pathol; 6(2):143-149 1982

Keratin antibodies (KA) were used for differential diagnosis of epithelial neoplasms from nonepithelial neoplasms in 40 patients with nasopharyngeal neoplasms. KA titered out to a dilution of 1:3,200 using an initial dilution of 1:100. The antigen-antibody reaction was completely inhibited by the addition of microgram quantities of keratin prior to incubation on antigen-coated plates. Positive, specific labeling was observed in unfixed frozen sections without the use of pronase treatment, while formalin-fixed, paraffin-embedded tissue sections required pronase treatment for labeling. Twenty-five lesions were classified as squamous cell carcinoma (SCC), 11 were keratinizing, and 15 nonkeratinizing tumors. The subcatergorization is summarized. Seven patients with malignant lymphoma all had positive nasopharyngeal biopsies, but all had additional lymph nodal tissue obtained at subsequent biopsy or autopsy which confirmed diagnosis. Two patients with malignant melanoma (MM) each had a nasopharyngeal tumor characteristic of melanoma, and each had a documented previous cutaneous MM prior to the nasopharyngeal lesion. With immunoperoxidase staining all SCC were positive for keratin. Nonkeratinizing tumors tended to stain less intently and more focally than keratinizing lesions. Antikeratin staining was in general more intense in well-differentiated tumors as opposed to less differentiated tumors. In poorly differentiated lesions, staining was frequently focal and many cells did not stain. The epithelial cells of the lymphoepitheliomas showed definite staining, but at times this was delicate and not all epithelial clusters stained. One of the undifferentiated malignant neoplasms had a somewhat epithelioid appearance and had originally been interpreted as anaplastic SCC. This technique appears to be a useful, reliable, and sensitive method for diagnosing and classifying nasopharyngeal lesions. (16 Refs)

4. APPROACHES TO THE DIAGNOSIS AND TREATMENT OF TUMORS OF THE PARAPHARYNGEAL SPACE.

Bass RM
701 North Walnut, Springfield, IL, 62702
Head Neck Surg; 4(4):281-289 1982

Diagnosis and treatment of tumors of the pharyngeal space is reviewed and six case histories are presented. Tumors of the deep lobe of the parotid with extension into the parapharyngeal space or tumors originating in the parapharyngeal space are rare and represent only 0.5% of all head and neck neoplasms. Presenting signs include painless masses bulging into the tonsillar, nasopharyngeal, or retromandibular area. The majority of these tumors are benign, with the most common types being a benign mixed (pleomorphic adenoma) (40%) and neurogenic (30%). The usefulness of sinus films, skull base and lateral pharyngeal area tomograms, computed tomogram scans with simultaneous parotid sialograms, and angiograms for diagnosis was discussed. The treatment of choice for parapharyngeal space tumors is surgical removal using an external approach. Intraoral open biopsies should not be performed unless mucosal ulceration is present, since benign pleomorphic adenomas, the majority of benign masses, may be seeded by this technique. The anatomy of the parapharyngeal area is discussed. (24 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

5. BARIUM EXAMINATION OF THE ESOPHAGUS AFTER TOTAL LARYNGECTOMY.

Balfe DM, Koehler RE, Setzen M, Weyman PJ, Baron RL, Ogura JH
Mallinckrodt Inst. Radiology, Washington Univ. Sch. Medicine, 510 South Kingshighway, St. Louis, MO, 63110
Radiology; 143(2):501-508 1982

Barium examination of the esophagus is often useful for evaluating the cause of dysphagia, a frequent condition in patients who have undergone total laryngectomy. The examination may be difficult to interpret, however, because a variety of anatomic changes may be produced by radiation, infection, fistula, recurrent tumor, or the operation itself. Radiographic and clinical information on 45 total-laryngectomy patients, whose follow-up periods ranged from 6 mo to 17 yr, were analyzed. A recurrent tumor was found in 15 patients and was evident radiographically as a mass deviating the neopharynx in 14. Benign strictures in 14 patients appeared either as as a long symmetrical narrowing or as a very short, weblike narrowing. Fistulas were demonstrated in 13 patients and presaged the development of recurrent tumors in five. Cricopharyngeal muscular dysfunction accounted for dysphagia in five cases. An understanding of these patterns leads to more accurate interpretation of the postoperative barium examination of the esophagus, and the radiographic findings often indicate the correct diagnosis with a high degree of confidence. (Author abstract) (13 Refs)

6. CARCINOMA OF THE TONSILLAR REGION. RESULTS OF EXTERNAL IRRADIATION.

Tong D, Laramore GE, Griffin TW, Russell AH, Tesh DW, Taylor WJ, Martenson JA
Dept. Radiation Oncology, NNIIO, Univ. Washington, Univ. Hosp., RC-8, 1959 N.E. Pacific St., Seattle, WA, 98195
Cancer; 49(10):2009-2014 1982

A retrospective analysis is made of 104 patients treated with photon megavoltage radiotherapy for squamous cell carcinoma of the tonsillar region during the period 1965-1975. Moderately differentiated squamous cell carcinoma was the most common histological grade. Fifty-three per cent of the cases presented with cervical lymphadenopathy with three cases of bilateral involvement. The 3 yr local control rate was 100% for Stage I, 74% Stage II, 49% Stage III, and 33% Stage IV. Two Stage III cases and one Stage IV case developed subsequent contralateral neck disease. No patient with either T1N0 or T2N0 tumor failed in the ipsilateral or contralateral neck despite the fact that 42% of the T1N0 cases and 37% of the T2N0 cases were treated with unilateral portals. The prognostic significance of the T and N stages, treatment techniques, as well as dose response relationships are analyzed and the literature is reviewed. (Author abstract) (20 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

7. MALIGNANT LYMPHOMA OF THE THYROID GLAND: A CLINICOPATHOLOGIC STUDY.

Kapadia SB, Dekker A, Cheng VS, Desai U, Watson CG
Dept. Pathology, Presbyterian-Univ. Hosp., DeSoto at O'Hara St., Pittsburgh, PA, 15213
Head Neck Surg; 4(4):270-280 1982

A total of 21 cases of thyroid lymphoma diagnosed during a 12 yr period (1969-1980) is reviewed. The most common presenting symptoms were a rapidly growing thyroid mass with hoarseness, dysphagia, and breathing difficulty. The thyroid was the primary site in 19 patients, and thyroid lymphoma was part of systemic involvement in 2 patients. The 20 non-Hodgkin lymphoma patients had a mean age of 66 yr, 75% were women, and all were Caucasian. Most patients had diffuse histiocytic lymphomas. Hashimoto thyroiditis was associated in 57% of the patients. Intracytoplasmic monoclonal immunoglobin was present in five of 15 cases. All 21 patients underwent surgery, 19 received radiotherapy, and 13 chemotherapy. Fourteen patients are dead. The overall median survival was 8 mo. The remaining six patients are alive and free of disease for 9-68 mo (mean: 27 mo). The major cause of death was dissemination after local control by radiotherapy. Median survival was longer in men, patients under 65 yr of age, and patients who did not have extrathyroid soft tissue or regional lymph node involvement. The histologic features that aid in the differential diagnosis of malignant thyroid lymphoma are discussed. (32 Refs)

8. THE IMPORTANCE OF EARLY DIAGNOSIS IN PATIENTS WITH HEREDITARY MEDULLARY THYROID CARCINOMA.

Wells SA, Baylin SB, Leight GS, Dale JK, Dilley WG, Farndon JR
Dept. Surgery, Washington Univ. Sch. Medicine, Barnes Hosp., 4960 Audubon Ave., St. Louis, MO, 63110
Ann Surg; 195(5):595-599 1982

Ninety-two patients from 12 kindreds with hereditary medullary thyroid carcinoma (MTC) were evaluated. We sought to determine if the stimulated plasma calcitonin (CT) level at the time of diagnosis was of prognostic significance. The patients were divided into four groups according to their preoperative stimulated plasma CT levels (1) 250-1,000 pg/ml (n = 25); (2) 1,000-5,000 pg/ml (n = 36); (3) 5,000-10,000 pg/ml (n = 8); (4) greater than 10,000 pg/ml (n = 23). Compared between the four groups were several parameters, including incidence of regional lymph node metastases, incidence of residual MTC postthyroidectomy (as indicated by increased (greater than 300 pg/ml) plasma CT levels after operation), incidence of distant metastases, and incidence of death. Also compared were the incidences of microscopic or gross MTC in thyroidectomy specimens. The incidence of regional lymph node involvement ranged from a minimum of one (4%) of 25 patients in Group 1 to 13 (57%) of 23 patients in Group 4. Similarly, plasma CT levels were elevated in only one (4%) of 25 patients in Group 1 compared to 14 (61%) of 23 patients in Group 4. There was no evidence of distant metastases or death in the patients in Groups 1, 2, or 3. In the 23 patients in Group 4, however, four (17.4%) had distant metastases and two (8.7%) died of disease during the period of observation. Of the 25 patients in Group 1, MTC was evident only by microscopic examination in 14 (56%). Eleven (44%) of the patients in Group 1 had macroscopically evident medullary thyroid carcinoma. This is in contrast with patients in Group 4 where all 23 had grossly evident MTC. These data indicate that the stimulated plasma CT level at the time of diagnosis is an excellent prognostic indicator of the extent of a disease in patients with hereditary MTC. Aggressive screening of kindred members at risk of critical importance for establishing the diagnosis and instituting therapy at a time when the neoplasm is confined to the thyroid gland. (Author abstract) (8 Refs)

9. CARCINOEMBRYONIC ANTIGEN ASSAY IN THYROID SCREENING.

Shimaoka K, Chu TM
Dept. Clinical Pharmacology and Therapeutics, New York State Dept. Health, Roswell Park Memorial Inst., 666 Elm St., Buffalo, NY, 14263
J Cancer Res Clin Oncol; 103(1):99-103 1982

CEA assay was incorporated into a screening program in which a high risk population for thyroid diseases due to previous irradiation for benign conditions in the head and neck areas were studied. Seven hundred eleven CEA determinations were available from 735 patients screened; 22 (3.1%) were found to have an elevated level. This is compared to 31 (1.7%) from 1,875 healthy control subjects. Although the difference is statistically significant, we conclude the use of CEA assay in thyroid screening is not rewarding due to its lack of activity and specificity. (Author abstract) (8 Refs)

10. CORRELATION OF THYROIDITIS AND ANTI-THYROGLOBULIN ANTIBODIES (RIA) IN SERUM WITH THE INCIDENCE OF METASTASIS BY 131-I SCANS IN DIFFERENTIATED THYROID CARCINOMAS (MEETING ABSTRACT)

Echenique RL, Ibanez ML
M. D. Anderson Hospital and Tumor Institute, Houston, TX, 77030
Proc Am Soc Clin Oncol; 1:C-132 1982

Fifty patients, in a post-therapy follow up for differentiated nonmedullary thyroid carcinoma, were studied comparing the incidence of distant metastasis by 131-I scan with the detectability of thyroglobulin antibodies (hTg-AB) (RIA) in serum, at the time of the study, and with the retrospect association of thyroiditis to the primary thyroid tumor, at the initial thyroid surgical specimen, post-thyroidectomy. In the group of 34 patients with nondetectable hTg-Ab and without thyroiditis, the incidence of distant metastasis occurred in 24% of the cases (including one case with a false negative 131-I scan), in contrast with the group of 16 cases with associated thyroiditis where the incidence of distant metastasis was 6%; in none of the 7 cases with the finding of detectable hTg-Ab has distant metastasis occurred so far. This study suggests that the association of differentiated thyroid carcinoma with thyroiditis may protect the host from the occurrence of distant metastasis. Therefore, a positive hTg-Ab (RIA) in serum may predict a better prognosis. These results may justify to employ the use of preventive immunological maneuvers, as adjuvant immunotherapy, at the initial diagnosis, in those patients with differentiated thyroid carcinoma and at high risk of distant metastasis and poor prognosis. (no Refs)

11. COLLAGENASE ACTIVITY IN SQUAMOUS CELL CARCINOMA OF THE HUMAN PAROTID GLAND.

Huang CC, Blitzer A, Abramson M
Dept. Otolarygology, Columbia Univ., New York, NY, 10032
Ann Otol Rhinol Laryngol; 91(2,part1):156-159 1982

A collagenase obtained from a single squamous cell carcinoma of human parotid gland was purified to homogeneity by procedures including precipitation with ammonium sulfate, gel filtration, ion-exchange chromatography with DEAE-cellulose, and extraction from polyacrylamide gel after electrophoresis. The parotid tumor collagenase had a mol wt of approx 68,000 and appeared similar to other mammalian collagenases in many respects such as action on collagen and response to common collagenase inhibitors. Analysis of specimens of various human parotid gland tumors revealed that the levels of collagenase activity were higher in squamous cell carcinoma than in nonsquamous tumors. A high level of collagenase activity from squamous cell carcinoma suggests that collagenase may promote local connective tissue destruction associated with tumor invasion and lymph node metastasis. (Author abstract) (15 Refs)

12. THE DIAGNOSIS OF MUCOEPIDERMOID CARCINOMA OF THE SALIVARY GLANDS BY FINE NEEDLE ASPIRATION (MEETING ABSTRACT)

Lininger JR, Covell JL, Feldman PS
University of Virginia Medical School, Charlottesville, VA
Acta Cytol (Baltimore); 25(6):720 1981

This report presents our cytologic findings with fine needle aspirations (FNA) of four mucoepidermoid carcinomas and compares these findings with FNA of 81 cases of epidermoid carcinoma metastatic to the neck. Three cases were high-grade mucoepidermoid carcinomas, and one case was a low-grade mucoepidermoid carcinoma. Three cases were from the parotid, and one case was from the submandibular gland. Three cases were diagnosed as mucoepidermoid carcinoma, and had subsequent histologic confirmation. The fourth case was diagnosed as epidermoid carcinoma by open biopsy of a neck mass. No primary was found, and the mass was irradiated. The patient returned seven months later with facial paralysis and an ill-defined postauricular mass. FNA of the salivary gland was diagnosed as metastatic epidermoid carcinoma. Subsequent surgical biopsy revealed a mucoepidermoid carcinoma. Review of the FNA showed previously unappreciated glandular type cells as well as squamous cells. This case illustrated the necessity of differentiating these tumors from metastatic epidermoid carcinomas in the neck. (no Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

13. ACOUSTIC NEUROMA.

Sterkers JM
Service O.R.L., C.H.U. Cochin-Port-Royal, 27, faubourg St-Jacques, 75014 Paris, France
J Fr Otorhinolaryngol; 31(4):285-290 1982

Epidemiology, diagnosis, and treatment of acoustic neuroma (AN) are discussed. The evolution of AN is marked by unilateral hearing difficulties. Diagnosis of AN should be made as early as possible in order to preserve hearing and facial mobility. AN should be suspected whenever a history of unilateral difficulty in hearing on the telephone or progressive unilateral hearing loss exists. The diagnosis should be considered even when other etiologies, such as acoustical or cranial trauma or professional deafness, seem likely. The clinical search for an acoustic neuroma should include a tonal audiogram followed by a scan by computed tomography if indications exist for AN. Treatment for AN is essentially microsurgical. Intracanal tumors should be approached by the middle cerebral fossa.

The translabyrinthian approach should be used when intra- or extracanal tumors are accompanied by deafness, because the facial nerve is better protected with this approach. The retrosigmoid approach should be used for tumors which surpass the angle of the canal; such an approach has the advantage of preserving facial function and hearing. The suboccipital or the wide translabyrinthian approach should be used to excise voluminous tumors. (6 Refs) (In FRE)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

14. TREATMENT OF MANDIBULAR BONE HAEMANGIOMA BY BIOLOGICAL PLASTIC TAMPONADE IN CHILDREN.

Kolesov AA, Kasparov NN, Dyakov SV, Pershin MA
Dept. Paediatric Stomatology, N. A. Semashko's Moscow Medical Inst. Stomatology, Delegatskaya 20/1, 103473 Moscow, USSR
Acta Chir Plast (Prague); 23(4):202-205 1981

Clinical and roentgenological features, diagnosis, and treatment of five children (4 girls, 1 boy, 8-13 yr old) with mandibular hemangioma (MH) are discussed. Diagnosis in three patients was established from findings obtained by x-ray examination and puncture of the neoplasm. Open surgical biopsy was required for diagnosis of MH, capillary type, in an 8-yr-old girl; intraosseal cavernous type MH occurred in four children. Clinically, an insignificant deformation of mandibula was observed in all children. Roentgenography revealed regions of osteoporosis in the corpus of the mandibular bone in children with cavernous type MH. The regions appeared as circular holes or as a large singular cavity surrounded by several smaller eliptical or circular cavities. Final diagnosis was established following open surgical biopsy. Biological plastic tamponade (BPT) of bone cavities was used for treatment of MH. The course of operation is described. Results of treatment were reexamined 5-14 yr postoperatively. Two to 3 yr postoperatively, rebuilding of the bone that resulted in normal structure or sclerosis was observed where tamponade had been applied and the mandibular corpus had been covered with a flap. Recurrence was observed in a 9-yr-old girl 3-4 yr postoperatively. After repeated surgical treatment, x-ray irradiation was applied in a total dose of 1,200 R. The patient remained under observation. BPT is recommended in treatment of cavernous MH not penetrating the cortical layer of the bone. (8 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

15. ADJUVANT CHEMOTHERAPY IN HEAD AND NECK CARCINOMA.

Cachin Y
Department de Chirurgie Cervico-Faciale, ORL institut Gustave-Roussy, rue Camille Desmoulins 94800 Villejuif, Paris, France
Clin Otolaryngol; 7(2):121-132 1982

The present status of adjuvant chemotherapy for head and neck carcinoma is reviewed with respect to efficacy-toxicity. A total of 32 therapeutic trials testing the value of adjuvant chemotherapy (combined with surgery and/or radiation) in patients with previously untreated head and neck carcinomas were collected from the literature. Results from trials of chemotherapy before radiotherapy indicate that improvement in initial tumor regression and average survival can be obtained, with no change in long term survival. Studies of chemotherapy before surgery indicate that long term survival may be improved by such treatment. Of the trials to date in which chemotherapy was administered simultaneously with radiotherapy, only one has shown any significant difference between this regimen and radiotherapy alone. The accumulation of toxic effects in simultaneous therapy is a major problem. Routine chemotherapy given after classical treatment (surgery and/or radiotherapy) for head and neck carcinoma is of dubious value; no convincing results have been obtained. The relative risks and benefits of monochemotherapy vs polychemotherapy are discussed. (17 Refs)

16. CLONAL GROWTH AND SERIAL PASSAGE OF HEAD AND NECK SQUAMOUS CELL CARCINOMA (SCC): TUMOR SITE DETERMINES CULTIVABILITY (MEETING ABSTRACT)

Ervin TJ, Beckett MA, Miller D, Rheinwald JG
Sidney Farber Cancer Institute, Boston, MA, 02115
Proc Am Soc Clin Oncol; 1:C-759 1982

We have used a system optimized for the growth of normal stratified squamous epithelial cells (keratinocytes) to culture SCCs of the head and neck. Cultures are begun as explant outgrowths of minced biopsies cocultivated with mitomycin-treated 3T3 cells in a 1:1 mixture of DME and F12 + 5% fetal calf serum + 0.4u/ml hydrocortisone + 20 mg/ml EGF (epidermal growth factor) + 10(--10) M cholera toxin. By 4 days after plating, non-stratifying cells, usually less tightly packed than normal keratinocytes, are observable. Cells of this abnormal morphology form colonies from single cells at subculture with an efficiency of 5 to 50% in this system. These cells are aneuploid, can be passaged indefinitely in culture, and form SCCs in athymic mice, as reported previously. We have successfully cultured 16 SCC populations from 45 biopsies to date. Seven failures were from contamination, this success rate varied greatly with respect to site of the primary tumor. Of those that were not contaminated, 12/16 SCCs of the oral cavity grew in culture in contrast to only 4/21 SCCs of the remaining upper aerodigestive tract. The 16 cultured SCCs varied in their morphology and in their dependence upon anchorage and fibroblast feeder support. Many did not grow well in semi-solid medium. More than 80% of the SCCs could form large colonies in surface culture at an efficiency greater than or equal to 1% in the absence of a 3T3 feeder layer if 3T3-conditioned medium was used. (no Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

17. CAROTID BODY TUMORS IN HUMANS: GENETICS AND EPIDEMIOLOGY.

Parry DM, Li FP, Strong LC, Carney JA, Schottenfeld D, Reimer RR, Grufferman S
Clinical Epidemiology Branch, Div. Cancer Cause and Prevention, NCI, NIH, Public Health Services, Landow Building, Room 5A21, Bethesda, MD, 20205
JNCI; 68(4):573-578 1982

Genetic factors in the etiology of carotid body tumors (CBT) were sought in a medical record review of 222 histologically diagnosed cases at 12 US medical centers. Patients in the series, which had a marked female predominance (146 females:76 males), usually developed tumors between the fourth and seventh decades of life (mean, 44.7 yr). In 16 patients who also had other extra-adrenal paragangliomas, suggesting a multiple primary tumor syndrome, CBT were diagnosed significantly earlier (mean, 35.4 yr; p less than 0.01). The occurrence of thyroid cancer in five other patients appeared to be excessive. Familial CBT was recognized in 16 patients from 13 affected families, including 9 newly ascertained kindreds. Compared with nonfamilial lesions, familial CBT tended to develop bilaterally (38% vs 8% unilaterally) and at slightly earlier ages (41.6 vs 44.9 yr). CBT was reported to occur in an autosomal dominant pattern in some families and within sibships in others; relatives were not examined for confirmation. The familial findings are generally consistent with a two-step mutation model of the development of hereditary and nonhereditary CBT; apparent deviations from the model might be clarified with additional data on this rare neoplasm. (Author abstract) (35 Refs)

18. CURRENT CONCEPTS IN OTOLARYNGOLOGY. RISK FACTORS IN HEAD AND NECK CANCER.

Decker J, Goldstein JC
(c/o Goldstein) Dept. Surgery, Div. Otolaryngology, Albany Medical Coll., Albany, NY, 12208
N Engl J Med; 306(19):1151-1155 1982

As many as 90% of head and neck cancers arise in susceptible persons after prolonged exposure to known environmental factors; current concepts regarding these risk factors are reviewed. Lip cancers are found predominantly in white men, and the lower lip is more often involved; prolonged and intense exposure to the sun, use of tobacco, and various oral disorders are risk factors. Oral cavity and pharynx cancers are promoted by tobacco and alcohol use, and there are significant cultural and geographical variations in incidence. The major risk factors in cancer of the larynx are tobacco and alcohol; risk declines after cessation of smoking. Nasopharynx, nose, and paranasal sinus cancers are distinct from other head and neck cancers because they are not tobacco-related. Most are histopathologically distinct (non-keratinizing squamous cell-carcinoma or lymphoepithelioma) and frequently occur in a younger age group. Both genetic factors and Epstein-Barr virus have been associated with cancers in this group. Although environmental causes account for most head and neck cancers, there are considerable differences in individual susceptibility to these diseases, such as in medullary carcinoma of the thyroid associated with pheochromocytoma and parathyroid neoplasia (Sipple's syndrome) or cutaneous cancers in patients with xeroderma pigmentosa. (45 Refs)

19. HEAD AND NECK CARCINOMA IN PATIENTS UNDER 40 YEARS OF AGE.

Carniol PJ, Fried MP
705 Harvard Road, Bala Cynwyd, PA, 19004
Ann Otol Rhinol Laryngol; 91(2,part1):152-155 1982

From 1965-1978 over 2,700 patients were admitted to the Massachusetts Eye and Ear Infirmary or the Massachusetts General Hospital with carcinoma of the oropharynx, larynx or nasopharynx; over 36 of these patients were less than 40 yr of age. Twelve patients had oropharyngeal carcinoma, 13 patients had laryngeal or hypopharyngeal carcinoma, and 11 patients had nasopharyngeal carcinoma. Analysis of these patients indicates an increased incidence of head and neck cancer in younger females. In patients less than age 31 there was no significant social history which contributed to early onset of disease. The younger patients with nasopharyngeal carcinoma survived longer than patients of all ages with comparable neoplasms. The survival of patients with oropharyngeal, laryngeal and hypopharyngeal carcinoma is comparable to survival in patients of all ages with similar lesions. (Author abstract) (17 Refs)

20. CANCER OF THE ETHMOID. ROLE OF EXPOSURE TO WOOD DUST AND CLINICAL ASPECTS. (REPORT OF 61 CASES OF ADENOCARCINOMA OF THE ETHMOID AT INSTITUTE GUSTAVE-ROUSSY).

Marandas P, Schwaab G, Lecointre F, Pene F, Vanderbrouck C
Institut Gustave-Roussy, rue Camille Desmoulins, 94800 Villejuif, France
Arch Mal Prof; 42(5):294-300 1981

Cancer of the ethmoid was diagnosed in 112 patients during the period 1961-1979, accounting for 0.7% of all cancers of the ear-nose-throat region. Adenocarcinoma was diagnosed in 61 patients (59 men and 2 women, 37-88 yr old), epidermoid epithelioma in 22, cylindroma in 8, olfactory esthesioneuroma in 6, hematosarcoma in 5 and other malignant tumors in 10. The 61 patients with ethmoid adenocarcinomas included 35 patients who were exposed occupationally to wood dust in closed spaces. The length of exposure was 5-10 yr in 6 cases, 10-20 yr in 5, 20-30 yr in 3, 30-40 yr in 4, 40-50 yr in 12 and more than 50 yr in 5. The interval between first exposure to wood dust and diagnosis of the tumor averaged 41 yr. Tannins and tannic acid are considered to be the carcinogenic factor in the wood workers. Isolated nasal symptoms were found in 33/61 patients with adenocarcinomas. The tumor was demonstrated by anterior rhinoscopy in most cases. Treatment consisted of surgical excision followed by external radiotherapy in 34/61 cases, excision only in 8, excision followed by curietherapy in 7, external radiotherapy only in 8, preoperative radiotherapy, surgery and external radiotherapy in 1, external radiotherapy, surgery and curietherapy in 1, and chemotherapy only in 2. Local recurrences were seen in 32/61 patients, all of whom were treated again surgically, 27 of them with curative intent. The 3-and 5-yr survival rates were 65% and 48%, respectively. (27 Refs) (In FRE)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1982—371-047/126

AUTHOR INDEX WITH CITATION NUMBERS

Abramson M. 11
Balfe DM. 5
Baron RL. 5
Barwick KW. 3
Bass RM. 4
Baylin SB. 8
Beckett MA. 16
Blitzer A. 11
Cachin Y. 15
Carney JA. 17
Carniol PJ. 19
Chapman P. 1
Cheng VS. 7
Chu TM. 9
Covell JL. 12
Dale JK. 8
Decker J. 18
Dekker A. 7
Desai U. 7
Dilley WG. 8
Dyakov SV. 14
Echenique RL. 10
Ervin TJ. 16
Farndon JR. 8
Faucher A. 2
Feldman PS. 12
Fried MP. 19
Goldstein JC. 18
Griffin TW. 6
Grufferman S. 17
Huang CC. 11
Ibanez ML. 10
Kapadia SB. 7
Kasparov NN. 14
Koehler RE. 5
Kolesov AA. 14
Laramore GE. 6
Lecointre F. 20
Leight GS. 8
Li FP. 17
Lininger JR. 12
Madri JA. 3
Marandas P. 20
Martenson JA. 6
Miller D. 16
Ogura JH. 5
Palmer BV. 1
Parry DM. 17
Pene F. 20
Pershin MA. 14
Petriat B. 2
Pigneux J. 2
Pittam MR. 1
Reimer RR. 17
Renaud-Salis J. 2
Rheinwald JG. 16
Richaud P. 2
Russell AH. 6
Schottenfeld D. 17
Schwaab G. 20
Setzen M. 5
Shaw HJ. 1
Shimaoka K. 9
Sterkers JM. 13
Strong LC. 17
Taylor WJ. 6
Tesh DW. 6
Thornton H. 1
Tong D. 6
Touchard J. 2
Vanderbrouck C. 20
Watson CG. 7
Wells SA. 8
Weyman PJ. 5

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

U.S.MAIL

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

ct 11/82/10

NCI/ICRDB/CT11 82/10

PB82-938510

ICRDB CANCERGRAM

INTERNATIONAL CANCER RESEARCH DATA BANK

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/10

OCTOBER, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
NOV 8 1982
U. S. GOVT. PUBS.
DEPOSITORY 376

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS 1-2
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS 3-4
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS 5
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS 6-12
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS 13-18
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS 19-23
- MONO-MODAL, ADJUNCTIVE, MULTIMODAL OR COMBINED THERAPIES 24-26
- PROGRESS IN RECONSTRUCTION AND REHABILITATION 27-28
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS 29

ORAL CAVITY AND OROPHARYNX TUMORS

1. SERUM IMMUNOGLOBULINS IN SQUAMOUS CELL CARCINOMA OF THE ORAL CAVITY.

Khanna NN, Das SN, Khanna S
Dept. Surgery, Inst. Medical Sciences, Banaras Hindu Univ., Varanasi-221005, India
J Surg Oncol; 20(1):46-48 1982

Serum immunoglobulins (IgG, IgA, and IgM) have been studied in 70 patients with squamous cell carcinoma of oral cavity and in 40 age-matched normal controls. The results were correlated with clinical stage, tumor size, lymph node status, tumor differentiation, and treatment modalities. There was a significant rise in serum IgM and IgA in oral cancer patients as compared to controls. It was further raised in advanced clinical stage, but tumor size and histological differentiation and treatment modalities (surgery and chemotherapy) do not seem to affect serum immunoglobulin levels. The observations imply that the extension and dissemination of tumor mass is the important factor for the change in serum immunoglobulin level in squamous cell carcinoma of the oral cavity. (Author abstract) (13 Refs)

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20.3173/2:

2. CARCINOMA OF THE BASE OF THE TONGUE: RESULTS OF RADICAL IRRADIATION WITH SURGERY RESERVED FOR IRRADIATION FAILURE.

Parsons JT, Million RR, Cassisi NJ
Div. Radiation Therapy, Box J-385, J. Hillis Miller Health Center, Gainesville, FL, 32610
Laryngoscope; 92(6,part1):689-696 1982

Between 1964 and 1977, 95 previously untreated patients with squamous cell carcinoma of the base of the tongue received treatment with curative intent at the University of Florida. Eighty-six of the 95 patients (91%) had Stage III or IV disease at presentation. Eighty-nine patients received radical courses of irradiation to the primary with or without neck dissection(s), with surgery reserved for salvage of irradiation failure. Six patients underwent planned combined treatment to the primary lesion. Of the 89 patients whose primary lesions were radically irradiated, failure at the primary site occurred in 24% of those with T1-3 lesions and 78% with T4 lesions. Control results were related to irradiation treatment technique. None of the nine patients with Stage I-II disease died of the cancer. Actuarial survival at 5 yr for Stage III patients was [illegible]%. Within the Stage IV population there is a subgroup of patients with highly treatable and curable disease. The addition of a neck dissection following irradiation of N2-N3 neck disease decreased the incidence of failure in the neck. No patient developed severe soft tissue necrosis or required mandibulectomy for bone exposure following irradiation. (Author abstract) (21 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX TUMORS

3. ANTIGEN SPECIFICITY OF SQUAMOUS CANCERS OF THE HEAD AND NECK BASED ON TUMOR SITE USING THE SLIDE LEUKOCYTE ADHERENCE INHIBITION ASSAY.

Taylor SG, Safford PC
Rush Presbyterian St. Lukes Medical Center, 1725 W. Harrison Street, Chicago, IL, 60612
J Surg Oncol; 20(1):41-45 1982

Patients with a diagnosis of squamous cancer of the upper aerodigestive (UAD) system were tested with extracts of squamous cancer arising from several regions of the UAD tract and compared to various control populations, using the slide leukocyte adherence inhibition (LAI) assay. Seven tumor extracts were tested. Twenty-five of 77 tests (32%) were positive in unselected UAD squamous cancer patients. However, matching patients with tumor extract by the site of origin within the UAD tract, 19 of 22 tests (86%) were positive when the site of origin was identical for leukocyte donor and extract. Two of four patients tested with an extract prepared from a different site within the same region of the UAD system were positive; whereas only 4 of 51 tests (8%) were positive in patients tested with an extract from a cancer arising from a different region within the UAD tract (P less than 0.001). One of 33 tests using patients with either no cancer (11 tests), squamous cancer of other regions (15), or adenocarcinoma (7) reacted to the extracts of UAD tract cancers. We conclude that patients with squamous cancer of the UAD tract can recognize distinct tumor-associated antigens that are site-specific and are non-cross-reactive using the LAI technique. (Author abstract) (17 Refs)

4. MALIGNANT MELANOMA OF THE NASAL CAVITY AND PARANASAL SINUSES.

Lund V
No affiliation given
J Laryngol Otol; 96(4):347-355 1982

Presented is a retrospective review of 36 patients (20 men, 16 women) with melanoma of the nasal cavity (33), the sinuses (3), the maxilla (1), and the ethmoids (2). Multiple sites were affected in some patients. Ninety-two percent of patients were greater than 50 yr old at initial diagnosis. Most presented with either unilateral nasal obstruction, epistaxis or a combination of both. Pain was not a frequent symptom. Two patients had noticed proptosis in addition to other symptoms, and another two had noticed swelling of the nose or an actual mass visible at the vestibule. Delay in presentation from onset of symptoms ranged from 1 mo to 2 yr. Five patients had clinically involved cervical nodes and two patients had secondary deposits in the lungs when first seen. Macroscopic appearances were variable, ranging from large polypoid masses which bled readily to firmer sessile lesions. The degree of pigmentation was highly variable, and 8/36 were amelanotic in nature. Treatment included extensive local excision usually via lateral rhinotomy. Four cases required total rhinectomy. Repeated excisions were performed as local recurrence occurred. Cryosurgery was used on small local recurrences, especially in older patients. Radiotherapy was used in combination with surgery/chemotherapy; chemotherapy was used alone and in combination with surgery or radiotherapy. Best survival was obtained by a combination of surgery and radiotherapy. Prognosis was poor, with over 2/3 dead within 5 yr. Prognosis appeared unrelated to size, site or pigmentation tumor. (12 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

5. INTERFERON THERAPY IN JUVENILE LARYNGEAL PAPILLOMATOSIS.

Haglund S, Lundquist PG, Cantell K, Strander H
Dept. Otolaryngology, Karolinska Sjukhuset, S-104 01 Stockholm 60, Sweden
Arch Otolaryngol; 107(6):327-332 1981

Seven cases of severe juvenile laryngeal papillomatosis were treated with exogenous leukocyte interferon (IFN-alpha). Tumor progression occurred in all cases before treatment. During treatment, the tumors decreased in size. When treatment was discontinued (5 cases), tumor growth recurred, and after restarting therapy, the tumors once more decreased in size. In one case, the tumor completely vanished. In another case with extensive papillomatosis that extended up to the base of the tongue, a tracheostomy could be closed with only a thin mass of papillomatous tissue that remained on the vocal cords. Exogenous leukocyte interferon therapy can affect the clinical course of juvenile laryngeal papillomatosis. The optimal schedule for therapy has yet to be determined. (Author abstract) (25 Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

6. FINE NEEDLE ASPIRATION OF THYROID COLD NODULES.

Gaham N, Rocmans P, Ketelbant-Balasse P, Vereist J, Mockel J, Glinoer D
Service de Medecine Interne, Hopital Universitaire Saint-Pierre 322, rue Haute, B-1000 Brussels, Belgium
Ann Endocrinol (Paris); 42(6):543-544 1981

Fine needle aspiration (FNA) was performed in 160 patients with thyroid cold nodules. In 144 (90%) patients adequate cytological material was aspirated for examination. In 128/144 (89%) of the cases, a benign lesion was diagnosed from the aspirate. In 16/144 (11%), there was an indication of a cancerous lesion. A total of 51 patients underwent surgery,and benign lesions were found in 39/41 patients with benign cytology, and malignant lesions were found in 5/10 patients with suspect cytology. In 20-30% of the patients antithyroid antibodies were found. In a retrospective review of 100 patients who underwent surgery for thyroid cold nodules, 92 had benign lesions, and 8 had thyroid cancer. FNA of cold nodules permitted significant improvement in the clinical diagnosis of nodules when results from the retrospective and prospective studies were compared. Cytological false negatives were rare, but caution is recommended in the follow-up of cases with benign cytology because two false-negatives did occur. (no Refs) (In FRE)

7. THYROTROPIN BINDING AND ADENYLATE CYCLASE ACTIVATION IN NORMAL AND NEOPLASTIC HUMAN THYROID TISSUE: LACK OF EFFECT OF THYROGLOBULIN.

Clark OH, Gerend PL, Nissenson RA
Surgical Service (112), Veterans Admin. Medical Center, 4150 Clement St., San Francisco, CA, 94121
J Clin Endocrinol Metab; 54(6):1157-1163 1982

The effects of bovine TSH (bTSH) and bovine (bTg) and human thyroglobulin (hTg) on the binding of [125I]bTSH and the activation of adenylate cyclase (AC) were studied in both normal and neoplastic human thyroid homogenates in vitro using adenylate cyclase conditions. [125I]bTSH bound specifically and with high affinity to a particulate fraction from normal thyroid and from benign and malignant thyroid neoplasms; this binding was inhibited by unlabeled bTSH (approx Kd = 10.0 mU/ml for normal tissue; Kd = 2.5 mU/ml for thyroid neoplasms). Half-maximal activation of AC was obtained at a TSH concentration of approx 2.5 mU/ml for both normal and neoplastic thyroid tissue, indicating that the high affinity TSH receptors are coupled to AC, at least in the neoplastic thyroid tissue. bTg and hTg did not inhibit [125I]bTSH binding to high affinity TSH receptors in either normal or neoplastic thyroid tissue. bTSH increased AC activity up to 25-fold in neoplastic thyroid tissue and up to 4-fold in normal thyroid tissue, whereas at concentrations up to 1 mg/ml, bTg had no effect. The current study demonstrates that bTSH binds to specific, high affinity receptors and stimulates AC activity in both normal and neoplastic thyroid tissue. bTg and hTg, under the conditions used in this experiment, do not influence TSH binding to its high affinity receptor in these tissues. Since Tg does not influence high affinity TSH binding or AC activity in a particulate fraction rich in plasma membranes from normal or neoplastic thyroid tissue, it is unlikely to have a modulating role on TSH action at the thyroid plasma membrane. (Author abstract) (26 Refs)

8. RE-OPERATIVE SURGERY FOR HYPERPARATHYROIDISM (MEETING ABSTRACT)

Palmer JA, Rosen IB
University of Toronto, Toronto, Ontario, Canada
Joint Meeting of the Society of Surgical Oncology and Society of Head and Neck Surgeons, April 18-23, 1982, Marco Island, Florida. The Society of Surgical Oncology and the Society of Head and Neck Surgeons 265 pp., 1982.

During the past 20 years we have operated upon 340 patients with primary hyperparathyroidism. Of these, 32 were re-explorations for persistent or recurrent hypercalcemia. Recurrence was rare occurring in only 2 patients, whereas persistence of hypercalcemia which denotes an unsuccessful initial operation - either the adenoma was not found or multiple gland abnormalities were not recognized or properly managed - required reoperation in 30 patients. Twenty-seven patients were referred from other hospitals by surgeons relatively inexperienced in parathyroid surgery. These were the easiest to correct with a missed adenoma in the neck the usual finding. Patients referred from experienced head and neck surgeons and our own failures were difficult, with multiple gland, fifth gland abnormalities or unusual ectopic sites being the cause of initial failure. Methods of preoperative investigations are outlined. Selective venous sampling and PTH (parathyroid hormone) assay has given satisfactory localization in 70% of patients. Arteriography to identify an abnormal parathyroid stain has been used less frequently but should be considered as a primary diagnostic technique. Exploration through a lateral neck incision is preferred and was successful in 29 of the 32 patients. Two of the unsuccessful cases were carcinomas. (no Refs)

9. ADENOCARCINOMA OF SALIVARY ORIGIN: A CLINICOPATHOLOGIC STUDY OF 208 PATIENTS (MEETING ABSTRACT)

Spiro RH, Huvos AG, Strong EW
Memorial Hospital, New York, NY
Joint Meeting of the Society of Surgical Oncology and Society of Head and Neck Surgeons, April 18-23, 1982, Marco Island, Florida. The Society of Surgical Oncology and the Society of Head and Neck Surgeons 265 pp., 1982.

This retrospective study concerns 208 patients with adenocarcinoma of salivary gland origin who comprised 8 percent of more than 2500 patients treated during a 30 year period for salivary gland tumors of various histologic types. Ninety-eight (47 percent) had already received treatment elsewhere before admission to our hospital. Adenocarcinoma arose most often in minor salivary glands (140 patients; 29 percent of all minor salivary tumors), and was infrequently encountered in the parotid gland (54 patients, 5 percent of all parotid tumors) or the submandibular gland (14 patients, 10 percent of all submandibular tumors). In contrast to our previously reported experience with mucoepidermoid, adenoidcystic and acinic cell carcinomas, as well as malignant mixed tumors, histologic classification was particularly difficult. The histologic pattern was typical in 155 patients, permitting subdivision into low, intermediate or high grade adenocarcinoma (grades I, II, III). The remainder was subclassified according to the presence of unusual histologic features, most often a papillary configuration (18 patients) or an obvious mucinous appearance (27 patients). Only patients eligible for a minimum of ten years follow-up were included. Despite radical surgery high grade, high stage tumors were almost invariably lethal, with survival rates approaching the lowest recorded for malignant salivary tumors. The need for adjunctive irradiation in these patients seems clear. Low grade, low stage tumors were usually controlled by conservative operative procedures. (no Refs)

10. SURGERY FOR PRIMARY HYPERPARATHYROIDISM: EXPERIENCE WITH 500 CONSECUTIVE CASES AND EVALUATION OF THE ROLE OF SURGERY IN THE ASYMPTOMATIC PATIENT.

Russell CF, Edis AJ
Dept. Surgery, Mayo Clinic and Mayo Foundation, Rochester, MN
Br J Surg; 69(5):244-247 1982

A group of 500 patients with a presumptive diagnosis of primary hyperparathyroidism (HPT) was operated upon at the Mayo Clinic between September 1974 and May 1980 using a standardized operative strategy. Clinical profiles, biochemical data, operative findings and pathological changes are reviewed. Of the 500 patients, 461 (92.2%) were cured after primary cervical exploration. One patient died during the postoperative period, 1 had a permanent unilateral vocal cord paralysis and 10 (2%) had protracted hypoparathyroidism. Owing to the continuing controversy regarding the appropriate therapeutic management of asymptomatic, uncomplicated and mild ('biochemical') primary HPT, we further evaluated this surgical experience by comparing the results of operation in two groups of patients: those with 'biochemical' HPT (serum calcium less than 11 mg/dl) and those with 'non-biochemical' HPT (symptomatic or complicated disease or serum calcium greater than 11 mg/dl). The cure rate in each patient group was greater than 90%. A statistically significant increase in the incidence of negative cervical exploration (4 normal parathyroid glands identified and biopsied) was noted in the 'biochemical' group. However, parathyroid disease was found at operation in 92% of these patients. We conclude that cervical exploration in all patients with primary HPT, including those with 'biochemical' disease only, is safe and that such an aggressive management policy is justified. (Author abstract) (8 Refs)

11. MELANIN PRODUCTION IN A MEDULLARY THYROID CARCINOMA.

Marcus JN, Dise CA, LiVolsi VA
Dept. Pathology, Univ. Cincinnati Medical Center, Cincinnati, OH, 45267
Cancer; 49(12):2518-2526 1982

Melanin production by a medullary thyroid carcinoma (MTC) is reported and discussed. Immunohistochemically, the tumor cells contained calcitonin; by electron microscopy, they bore numerous, heterogenous granules similar to those described previously in MTCs. One small focus of tumor was pigmented. Here, melanosomes in different stages of maturation were found in dendritic cells that ramified among granule-bearing cells. The remarkable phenotypic divergence in this solitary, nongerm cell neoplasm is unusual but not so surprising in light of the APUD nature and neural crest origin of both the melanocyte and the thyroid C cell, which gives rise to MTC. The authors view the calcitonin and melanosome phenotypes as closely related tumor clones evolving from a common precursor neoplastic cell. This unique 'experiment of nature' adds to the set of rare human tumors that make melanin 'ectopically'. (Author abstract) (50 Refs)

12. PRESENCE OF CALMODULIN IN PARATHYROID ADENOMAS.

Oldham SB, Lipson LG, Tietjen GE
Dept. Medicine, Univ. Southern California Sch. Medicine, 2025 Zonal Ave., Los Angeles, CA, 90033
Miner Electrolyte Metab; 7(5):273-280 1982

A significant percent of parathyroid adenomas demonstrate decreased sensitivity to the suppressive effects of calcium on parathyroid hormone secretion. The recognition that calmodulin mediates a large number of calcium-dependent cellular events suggests that calmodulin may play a key role in the normal regulation by calcium of parathyroid activity. We therefore undertook to determine if parathyroid adenomas contained calmodulin and if so, if the calmodulin content of adenomas could be correlated with the serum concentrations of calcium and immunoreactive parathyroid hormone (IPTH) in hyperparathyroid patients prior to surgery. Calmodulin was assayed by activation of a calmodulin-stimulatable phosphodiesterase (PDE) obtained from rat brain. We found PDE-stimulating activity in each of sex adenoma extracts examined. The stimulation had the following properties, which are characteristic of calmodulin-mediated processes: (1) it required the presence of calcium; (2) the dose response to adenoma extract and human red blood cell calmodulin were parallel, and (3) the stimulation was phenothiazine-inhibitable . The amount of calmodulin present in the adenoma extracts ranged from 0.4 to 1.25 units/ug protein. No correlation was found between the calmodulin content of the adenomas and the presurgical levels of either serum calcium or serum IPTH. (Author abstract) (31 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

13. A STATISTICAL STUDY OF 56 PATIENTS TO DETERMINE THE PROGNOSIS OF MALIGNANT MELANOMAS OF THE CONJUNCTIVA AND EYELIDS.

Haye C, Saragoussi J, Asselian B, Schlienger P, Calle R

Section Medicale et Hospitaliere, Institut Curie, 26, rue d'Ulm, 75231 Paris, France

J Fr Ophtalmol; 5(3):159-166 1982

The long-term prognosis of malignant melanoma of the conjunctiva and eyelids was analyzed in 56 patients (20 men and 36 women, av age 57.5 yr). The following results were obtained: 85.6% of the patients were alive 5 yr, 68.2% were alive 10 yr, and 54.9% were alive between 15 and 20 yr. Mortality increased progressively over time and then remained stable after 12 yr. When compared with other cancers, the prognosis seemed relatively good at 5 yr but at 15 yr nearly half of the patients had died because of their disease. Sex and patient age did not affect the survival rate. Survival at 5 yr was 91.7% for those patients whose initial treatment was surgery and 77.3% for those patients who received radiotherapy. Survival at 20 yr was 55.2% for surgery patients and 45.9% for radiotherapy patients. In 80% of the patients (36/56) there was local or nodal recurrences. No recurrence were seen for 48.3% patients still alive at 5 yr, for 31.7% at 10 yr, and for 21.1% at 15 and 20 yr. The survival rates following recurrence were 49% at 5 yr, 31.5% at 10 yr, and 26.2% at 15 and 20 yr. Patients treated with combined surgery and radiotherapy had the best prognosis and patients treated with radiotherapy alone had the worst prognosis. (19 Refs) (In FRE)

14. ALVEOLAR SOFT-PART SARCOMA OF THE ORBIT: A CLINICOPATHOLOGIC ANALYSIS OF SEVENTEEN CASES AND A REVIEW OF THE LITERATURE.

Font RL, Jurco S, Zimmerman LE

Ophthalmic Pathology Lab., Cullen Eye Inst., Baylor Coll. Medicine, Houston, TX, 77030

Hum Pathol; 13(6):569-579 1982

This is a clinicopathologic study of 17 cases of alveolar soft-part sarcoma of the orbit. The mean age of patients was 23 and the median was 18 (range, 11 mo to 69 yr); 13 patients (76.5%) were women and 4 were men (ratio, 3.25:1). The right and left orbits were equally involved (8 patients each), and in one the laterality was not specified. Histologically, the tumors had a distinctive organoid pattern outlined by thin-walled capillaries and were composed of nests of large polyhedral cells with abundant, finely granular, acidophilic cytoplasm. Approx two thirds of the tumors had diagnostic PAS-positive disease-resistant crystalline structures. Histologically, the differential diagnosis included nonchromaffin paraganglioma, granular cell tumor, metastatic renal cell carcinoma, vascular tumor, alveolar rhabdomyosarcoma, and amelanotic malignant melanoma. Electron microscopic studies of one tumor disclosed mitochondria with abnormal cristae, increased amounts of glycogen, and cytoplasmic crystalline structures with a periodicity of 8 to 10 nm. Smaller membrane-bound electron-dense granules appeared to be precursors of the crystals. Follow-up studies showed that eight patients were alive and well (median follow-up period, 11.4 yr). Six of the eight patients at the time of diagnosis were 20 yr of age or younger. A ninth patient was alive and well 13 yr after excision of the orbital mass and 4 yr after bilateral thoracotomy with resection of nine pulmonary nodules. Two patients died as a result of metastatic disease, one 14 yr and the other 21 yr after initial orbital surgery. Two patients died of other causes, one of whom had pulmonary metastases at autopsy. The follow-up period on two recent cases was less than 3 years, and two patients were lost to follow-up. The disease pursued an indolent clinical course. Surgery offers the best chance to control the disease. (Author abstract) (24 Refs)

15. MALIGNANT MELANOMAS OF THE HUMAN UVEA. TWENTY-FIVE YEAR FOLLOW-UP OF CASES IN DENMARK, 1943-1952.

Jensen OA

Eye Pathology Inst., Univ. Copenhagen, Frederik V's Vej 11, 5, DK-2100, Copenhagen, Denmark

Acta Ophthalmol (Copenh); 60(2):161-182 1982

A follow-up of 302 patients who underwent enucleation for malignant intraocular melanoma between 1943-1952 is presented. These patients constituted the entire population of men and women treated for intraocular melanoma in Denmark during this period. A follow-up of 99% was achieved, 82% of the total being dead at the time of the followup. Of follow-up survivors, one patient with previous orbital recurrence was alive. The remaining survivors had no orbital recurrence or signs of metastases. Slightly more than half of patients dead at the time of follow-up were found to have died as a result of metastases. Slit lamp examination of the orbit to detect remaining malignant cells is recommended. In the event of recurrence conservative exenteration with preservation of the eyelids and periosteum is advised. In the few cases in which the eyelids are invaded, a regular exenteration is recommended. Prognosis in relation to various histopathological parameters, and therapy are also discussed. (48 Refs)

16. PROTON BEAM IRRADIATION OF UVEAL MELANOMAS. RESULTS OF 5-1/2-YEAR STUDY.

Gragoudas ES, Goitein M, Verhey L, Munzenreider J, Urie M, Suit H, Koehler A

Retina Service, Massachusetts Eye and Ear Infirmary, 243 Charles St., Boston, MA, 02114

Arch Ophthalmol; 100(6):928-934 1982

Proton beam irradiation was used in the treatment of 76 uveal melanomas from July 1975 to December 1980. Five (7%) were small, 32 (42%) were medium, and 39 (51%) were large melanomas. The follow-up period ranged from 2 mo to 5-1/2 yr; 19 patients were followed up for more than 2 yr and 39 were observed for more than a yr. Tumor regression has been achieved in all eyes with more than 12 mo of follow-up except one, which was enucleated because of secondary complications. Three patients in whom metastatic disease developed died. Our data indicate that proton irradiation can be used for the treatment of relatively large lesions that previously were considered untreatable and reduces the high ocular morbidity experienced with other methods in the treatment of medium and small melanomas. (Author abstract) (31 Refs)

17. THE USE OF HIGH-ENERGY ELECTRONS IN THE TREATMENT OF MALIGNANT ORBITAL TUMORS.

Lommatzsch PK, Welker KW, Huttner J, Bauke G

Univ.-Augenklinik, Liebigstrasse 14, DDR-701 Leipzig, E. Germany

Klin Monatsbl Augenheilkd; 180(3):198-202 1982

Eight patients (2 men and 6 women, 36-93 yr old) with lymphatic tumors of the orbit, including non-Hodgkin's lymphoma, were treated with radiotherapy. The orbit was irradiated with 2,000-3,600 rad using a special tube containing a plexiglass rod to protect the eye. Rapid regression and complete remission were obtained in all cases. No recurrences were noted in 6 mo-3 yr observation. Two patients died of causes other than the tumor. (7 Refs) (In GER)

18. THE ROLE OF CRYOTHERAPY IN THE MANAGEMENT OF CONJUNCTIVAL MELANOMA.

Jakobiec FA, Brownstein S, Albert W, Schwarz F, Anderson R

Manhattan Eye, Ear and Throat Hosp., 210 East 64th St., New York, NY, 10021

Ophthalmology (Rochester); 89(5):502-515 1982

The use of cryotherapy in the treatment of 15 patients (10 women, 5 men) with melanocytic proliferative disease of the conjunctiva is described. Five patients were treated who had involvement of extensive geographic zones of either bulbar, palpebral, canthal, forniceal, or plical-caruncular conjunctiva by flat pigmentation. Of these, three have retained virtually the same pre- and postoperative visual acuities, without motility restrictions or extensive symblepharon formation. While only two are cured, the other three require only modest therapy to stay ahead of their disease. Four patients had nodules of invasive melanoma that were accompanied by insignificant amounts of surrounding flat pigmentation. Cryotherapy was added to the management protocol after surgical resection. None of these patients developed recurrence. Six patients had one or more nodules of invasive conjunctival melanoma associated with extensive areas of flat pigmentation involving various regions of the epibulbar, forniceal, tarsal-palpebral, canthal, and plical-caruncular conjunctiva. The corneal epithelium was frequently stippled with pigment. Two of these patients were treated with a single cryotherapy, but the other four required two or more treatments. Three of these six experienced complete eradication of their disease, established by biopsy, with follow-up of 3 mo, 9 mo, and 3 yr. The rationale, methods, limitations, results, and complications of cryotherapy are discussed. (13 Refs)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

19. DIAGNOSIS OF HEMANGIOMAS OF THE JAW AND FACE IN EARLY CHILDHOOD.

Schettler D, Hoesen J
Klinik fur Kiefer- und Gesichtschirurgie, Universitatsklinikum der Gesamthochschule Essen, Hufelandstr. 55, D-4300 Essen 1, W. Germany
Dtsch Zahnaerztl Z; 37(4):371-374 1982

Diagnosis and treatment of hemangiomas in early childhood (HEC) are discussed; three illustrative cases are presented. HEC in young children are dysontogenetic formations and include simple and cavernous types. Cavernous HEC may occur in the skin, mucosa, muscle, or bone. In many cases HEC regress spontaneously. Surgery is therefore indicated in only a few cases, since it involves loss of normal tissue; radiotherapy is contraindicated because of damage to normal tissues. A 4-mo-old girl was treated for a tuberous hemangioma in the oral floor and parotid area that presented a threat to life by interfering with breathing. The hemangioma was demonstrated by superselective angiography (SSAG). Embolization was not performed because of the smallness of the target vessels and the presence of arteriovenous shunts. The portion of the angioma in the oral floor was removed; the parotid portion regressed. An angioma HEC of the upper lip and nasal root in an 8-mo-old girl regressed spontaneously without treatment. A hemangioma of the left maxilla in a 14-yr-old girl was demonstrated by SSAG. Preoperative embolization to reduce bleeding was followed by surgical resection. Embolization is recommended only for minimizing intraoperative bleeding; treatment of HEC by embolization alone is worthless, since rapid recanalization and formation of arteriovenous shunts leads to complete recurrence. SSAG is the principle means of diagnosis of HEC. (5 Refs) (In GER)

20. FLOW CYTOFLUOROMETRIC DETECTION OF TUMOR-SPECIFIC ROSETTE-FORMING CELLS IN PATIENTS WITH SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK.

Tong AW, Vandenbark AA, Kraybill W, Vetto RM, Burger DR
Dept. Microbiology, Oregon Health Sciences Univ., Portland, OR, 97207
Cancer Res; 42(7):2949-2955 1982

Tumor-specific rosette-forming cells reactive to solubilized tumor antigens conjugated to autologous erythrocytes were quantitated by flow cytofluorometry. Leukocytes from a high frequency of the patients (greater than 70%) with squamous cell carcinoma of the head and neck (SQCC) formed rosettes to the conjugated SQCC tumor antigens but not to other histologically distinct tumor antigens (melanoma and colon carcinoma). Healthy control subjects or tumor patients with other cancers were mostly unreactive to the SQCC tumor extract [1 of 21 (5%) and 1 of 14 (7%) for controls and tumor patients, respectively]. Rosette-forming activity was observed in SQCC patients with primary cancers [22 of 30 (73%)] or in remission [5 of 6 (83%)], whereas patients with tumor recurrence were uniformly unresponsive. Tumor-specific rosette formation was mediated predominantly by monocytes, as identified by histochemical techniques and physiological properties. Rosette formation in reactive patients was abrogated by short-term culture, but the abated response could be restored by incubation with autologous serum or sera from other rosette-forming cell-positive patients. However, responsiveness of nonreactive patients with SQCC recurrence could not be constituted by rosette-forming cell-positive sera. These observations suggested the presence of tumor-reactive monocytes in a high frequency of patients with primary cancer or in remission but not in patients with recurrent disease. (Author abstract) (28 Refs)

21. THE SURGICAL TREATMENT OF VASCULAR TUMOURS OF THE FACE.

Kobus K, Licznerski A, Stepniewski J, Wiertel L, Charko W
4, Boczna Str., 57-320 Polanica, Zdroj, Poland
J Maxillofac Surg; 10(2):99-112 1982

On the basis of 650 vascular tumors of the face treated in the Hospital of Plastic Surgery in Polanica Zdroj, the authors discuss the various methods of surgery evolved during the 30 yr of Center activity. Special attention has been paid to the management of the more difficult lympho- and hemangiomas such as cavernous, hypertrophic and expansive, or progressive forms. Numerous examples of treatment are presented. (Author abstract) (34 Refs)

22. THREE-YEAR RELAPSE-FREE SURVIVAL RATES IN CHILDHOOD RHABDOMYOSARCOMA OF THE HEAD AND NECK. REPORT FROM THE INTERGROUP RHABDOMYOSARCOMA STUDY.

Sutow WW, Lindberg RD, Gehan EA, Ragab AH, Raney RB, Ruymann F, Soule EH
Dept. Pediatrics, Univ. Texas System Cancer Center, M. D. Anderson Hosp. and Tumor Inst., Texas Medical Center, Houston, TX, 77030
Cancer; 49(11):2217-2221 1982

In 202 patients with rhabdomyosarcoma of the head and neck who registered in the first Intergroup Rhabdomyosarcoma Study, the primary lesions arose about the eye and orbit in 26%, in parameningeal sites in 46%, and in other head and neck areas in 28%. Histopathologically, 78% were embryonal-botryoid, 9% alveolar, 10% undifferentiated, and 3% extraosseous Ewing's types. Actual 3-yr relapse-free survival rates were calculated from data on 103 of these patients who were free of distant metastases at diagnosis and in whom follow-up had been completed for a 3-yr period. The actual relapse-free survival rates were 91% (21/23) for those with eye/orbit primaries, 46% (20/44) for those with parameningeal primaries, and 75% (27/36) for those with other head and neck sites affected. Among those with no clinical evidence of tumor activity at 2 yr, 8% (6/75) had subsequent relapses. (Author abstract) (24 Refs)

23. MALIGNANT MELANOMA OF THE SKIN OF THE NOSE.

Byers RM, Smith L, DeWitty R
Head and Neck Surgery Dept., Univ. Texas System Cancer Center, M. D. Anderson Hosp. and Tumor Inst., Texas Medical Center, Houston, TX, 77030
Am J Otolaryngol; 3(3):202-203 1982

Records of 17 white patients (10 males, 7 females; 31-81 yr old) with cutaneous melanoma of the nose were reviewed. Overall 2-, 5-, and 10-yr survival rates were 82%, 29%, and 12%, respectively. Wide local excision of the lesion is treatment of choice; prophylactic lymph node dissection of the face or neck is not appropriate. Chemotherapy and immunotherapy for disseminated melanoma provide no lasting benefit, but may offer some extension of disease-free interval or survival in patients whose lesions are thicker than usual. (10 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

24. CHEMOTHERAPY OF LOCALLY AGGRESSIVE HEAD AND NECK TUMORS IN THE PEDIATRIC AGE GROUP (MEETING ABSTRACT)

Goepfert H, Cangir A
University of Texas System Cancer Center, M.D. Anderson Hospital and, Tumor Institute Houston, TX
Joint Meeting of the Society of Surgical Oncology and Society of Head and Neck Surgeons, April 18-23, 1982, Marco Island, Florida. The Society of Surgical Oncology and the Society of Head and Neck Surgeons 265 pp., 1982.

Aggressive fibromatosis (Fibrosarcoma Grade I, desmoid type) and Juvenile Nasopharyngeal Angiofibroma in children may be invasive, infiltrative into vital structures. The patient's life may become endangered or vital functions may become disrupted by the growing tumors. This report concerns five patients with aggressive fibromatosis of the head and neck and two patients with recurrent, unresectable juvenile nasopharyngeal angiofibroma that have been treated with systemic chemotherapy. Treatment consisted of monthly courses of Adriamycin (ADR) and Dimethyltriazeno-imidazole-carboxamide (DTIC). In those patients in whom myocardial tolerance for Adriamycin had been reached, continuation of treatment was done with Actinomycin D, Vincristine and Cytoxan. All patients were treated with between 6 and 10 monthly courses. Objective remission was achieved in all patients with complete disappearance of all disease in two patients. In the patients with aggressive fibromatosis frank objective tumor reduction was obtained after 3 to 6 courses of chemotherapy. The residual lesions were then resected by conservation procedures in three patients. Post-operative chemotherapy was administered for an additional 4 to 6 months. All patients have remained free of recurrence for up to 5 years. One patient with juvenile nasopharyngeal angiofibroma had total disappearance of all tumor as proven by angiography and biopsy after 6 months of chemotherapy. He has remained free of disease for 6 years. The main toxicity had been myelosuppression and no untoward sequelae of treatment have occurred. This treatment is recommended as an alternative to radiation therapy and considered valuable adjuvant to surgical resection of selected lesions. (no Refs)

25. COMBINED RADIOSENSITIZATION AND RADIOPROTECTION FOR ORAL CAVITY TUMORS: STUDY WITH AN ORAL CAVITY TUMOR CELL MODEL.

Grigsby P, Maruyama Y
Dept. Radiation Medicine, Univ. Kentucky Medical Center, 800 Rose St., Lexington, KY, 40536
Int J Radiat Oncol Biol Phys; 8(3/4):557-559 1982

Use of combined S-2-(3-aminopropylamino) ethylphosphorothioic acid (WR-2721), misonidazole (MIS), and single dose radiotherapy (0-3,500 centiGray) in treating an EMT 6/Ky tumor implanted in the buccal mucosa of female Balb/c mice was investigated. The tumor was injected as a cell suspension of 10(5) cells in 10 ul unilaterally into the buccal pouch. WR-2721 and/or MIS were injected ip 30 min prior to irradiation. Mean survival time (MST) and oral tumor death (OTD) were analyzed. In controls, MST ranged form 18.60-22.55 days for the OTD endpoint. With irradiation plus either WR-2721 or MIS, the MST increased above control level to a max of 29.08 days. MST increased with each incremental increase in radiation plus a given dose of WR-2721. At 1,500 centiGray, MST values for MIS at 700 or 300 mg/kg were significantly different from controls, while MST at 1,000 mg/kg was not. MST was not significantly different in any of the groups treated with irradiation, WR-2721 and MIS. The radioprotective ability of WR-2721 was increased when drug combinations of protection and sensitization were used at the max tolerated dose level, and combined with radiation using the ORD syndrome. The increase in MST was abolished when the radioprotector was combined with sensitizer, while the radioprotective ability of WR-2721 was retained. Direct competition at a common critical cellular binding site is postulated as the mechanism for these results. (5 Refs)

26. NEUROTOXIC RADIOSENSITIZERS AND HEAD AND NECK CANCER PATIENTS - HOW MANY WILL BENEFIT?

Cummings BJ, Thomas GM, Rauth AM, Sorrenti V, Black B, Bush RS
500 Sherbourne St., Toronto, Ontario, M4X 1K9, Canada
Int J Radiat Oncol Biol Phys; 8(3/4):343-345 1982

Of 159 patients with primary squamous cell carcinoma of the oral cavity and oropharynx, only 26/111 treated with radical irradiation were eligible for Phase I study of metronidazole (MET) as a hypoxic cell sensitizer. Criteria for eligibility are reviewed. Of 159 original patients, 153 were identified by the investigators, 150 were available for follow-up, 111 were planned for radical radiation, 95 were 30-69 yr old, 70 had normal nervous system history, 64 had no medical contraindication to MET treatment, 62 had no synchronous primary malignancy, 51 could be scheduled to receive 5,000 rad/20 fractions/4 wk, 48 had physician consent for receiving MET, 29 agreed to participate, and 26 had normal nervous system on examination. These 26 patients represent only 16% of the patients with primary carcinoma of the oral cavity or oropharynx and 23% of those who were treated by radical radiation therapy. Criteria for patient selection for studies of hypoxic cell sensitizers must be known so that data from different studies can be assessed appropriately before extrapolation to the general patient population. Factors that might influence patient entry must be taken into account in all clinical trials. (6 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

27. SURGICAL REPAIR OF CANCER OF THE LIPS. TECHNIQUES AND INDICATIONS.

Kauer C, Grellet M
Service de Chirurgie Plastique et Reparatrice, Centre Hospitalier Universitaire, Henri Mondor, 51, av de Lattre de Tassigny, 94010 Cretil, France
Ann Chir Plast; 27(1):30-35 1982

Several plastic surgery techniques used for surgical repair of the lip following tumor excision are reviewed. When the loss of the lower lip is less than a third, VY plasty may be performed and both esthetic and functional results are generally excellent. When the loss of the lower lip is between one 1/3 and 2/3, either a total flap from the other lip or a total cheek flap may be used for repair. When the lip loss is more than 2/3, a distant flap must be used and the deltopectoral flap (DPF) is recommended. When the whole lower lip and adjacent structures are loss, two DPF are recommended with a suture at the median line. Generally the Estlander-Abbe's technique is recommended whenever it is feasible because of superior esthetic and functional results. The Camille Bernard's technique is recommended for older patients needing substantial repair. The DPF is the technique of choice when major areas must be repaired. For the upper lip, the recommended techniques are the Estlander-Abbe's procedure and the Gillies fan-flap. Websters technique may be used for losses of 15-20 mm wide in the median zone. (8 Refs) (In FRE)

28. CRYOSURGICALLY TREATED AUTOGENOUS MANDIBULAR SEGMENTS IN IMMEDIATE RECONSTRUCTION (MEETING ABSTRACT)

Dougherty TP, Rafetto LK, Edwards RC, Caudill RJ, McInnes GF
Willimington Medical Center, Wilmington, DE

Joint Meeting of the Society of Surgical Oncology and Society of Head and Neck Surgeons, April 18-23, 1982, Marco Island, Florida. The Society of Surgical Oncology and the Society of Head and Neck Surgeons 265 pp., 1982.

The primary objective of immediate mandibular repair following ablative surgery is the restoration of natural spacial anatomic relations of the osseous and adjacent soft tissues to obviate the surgical, functional, esthetic, and psychosocial consequences of delay. Of the variety of materials and techniques proposed for mandibular reconstruction, autogenous grafts have proven most successful. An ideal graft reflects identical antigenicity and configuration of the resected segmented. These criteria have been met with increasing success through re-implantation of the resected mandibular segment after its treatment with liquid nitrogen. With double freeze-thaw cycles researchers have demonstrated neoplastic and normal cell viabilities to be zero. The residual template supports neo-osteogenesis and with proper stabilization, a clinical and microscopic biologic union at the resection site is effected. Technique has varied little in five cases. The harvested mandibular segment is grossly debrided of tumor, multiple fenestra placed, and then double freeze-thaw cycles are performed. Secure internal and external fixation are provided for a long post-op period as in the antibiotic coverage. Myocutaneous pedicaled grafts were used to produce primary intraoral closure when necessary. All patients treated were initially staged no greater than T2N1M0 and all with intraoral primaries; Epidermoid Ca (carcinoma) (4), Verrocous Ca (1). Three received pre-op chemotherapy, none received pre-op radiation and one received delayed post-op radiation. All displayed secure reimplanted segments with one case of persistent mucosal dihiscence and osteomyelitis which required removal of the graft. Progressive evidence of neo-osteogenesis was documented with serial Technetium MDP (mento-dextro posterior) scans. Histologic and plane polarized sections demonstrated non-vital bone resorption and subsequent deposition of reparative woven bone and revitalized haversian systems. (no Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

29. PHENYTOIN-INDUCED LYMPHADENOPATHY APPEARING AS A NASOPHARYNGEAL MALIGNANT NEOPLASM.

Treyve EL, Duckert LG
(c/o Duckert) Dept. Otolaryngology RL-30, Univ. Washington Sch. Medicine, Seattle, WA, 98195

Arch Otolaryngol; 107(6):382-384 1981

A case of phenytoin sodium-induced lymphadenopathy appeared as a nasopharyngeal malignant neoplasm with regional metastases. Cervical lymphadenopathy is a lesser-known drug reaction that is produced by anticonvulsant therapy; under some circumstances, this condition may be confused with head and neck malignant neoplasms. To date, phenytoin-induced nasopharyngeal lymphadenopathy has not previously been reported in the literature. A review of the medical literature provides some interesting facts about the syndrome. A familiarity with this potential complication of anticonvulsant therapy may expedite early diagnosis and appropriate patient treatment. (Author abstract) (23 Refs)

AUTHOR INDEX WITH CITATION NUMBERS

Albert W.	18
Anderson R.	18
Asselian B.	13
Bauke G.	17
Black B.	26
Brownstein S.	18
Burger DR.	20
Bush RS.	26
Byers RM.	23
Calle R.	13
Cangir A.	24
Cantell K.	5
Cassisi NJ.	2
Caudill RJ.	28
Charko W.	21
Clark OH.	7
Cummings BJ.	26
Das SN.	1
DeWitty R.	23
Dise CA.	11
Dougherty TP.	28
Duckert LG.	29
Edis AJ.	10
Edwards RC.	28
Font RL.	14
Gaham N.	6
Gehan EA.	22
Gerend PL.	7
Glinoer D.	6
Goepfert H.	24
Goitein M.	16
Gragoudas ES.	16
Grellet M.	27
Grigsby P.	25
Haglund S.	5
Haye C.	13
Heesen J.	19
Huttner J.	17
Huvos AG.	9
Jakobiec FA.	18
Jensen OA.	15
Jurco S.	14
Kauer C.	27
Ketelbant-Balas.	6
Khanna NN.	1
Khanna S.	1
Kobus K.	21
Koehler A.	16
Kraybill W.	20
LiVolsi VA.	11
Licznerski A.	21
Lindberg RD.	22
Lipson LG.	12
Lommatzsch PK.	17
Lund V.	4
Lundquist PG.	5
Marcus JN.	11
Maruyama Y.	25
Mcinnes GF.	28
Million RR.	2
Mockel J.	6
Munzenreider J.	16
Nissenson RA.	7
Oldham SB.	12
Palmer JA.	8
Parsons JT.	2
Rafetto LK.	28
Ragab AH.	22
Raney RB.	22
Rauth AM.	26
Rocmans P.	6
Rosen IB.	8
Russell CF.	10
Ruymann F.	22
Safford PC.	3
Saragoussi J.	13
Schettler D.	19
Schlienger P.	13
Schwarz F.	18
Smith L.	23
Sorrenti V.	26
Soule EH.	22
Spiro RH.	9
Stepniewski J.	21
Strander H.	5
Strong EW.	9
Suit H.	16
Sutow WW.	22
Taylor SG.	3
Thomas GM.	26
Tietjen GE.	12
Tong AW.	20
Treyve EL.	29
Urie M.	16
Vandenbark AA.	20
Verelst J.	6
Verhey L.	16
Vetto RM.	20
Welker KW.	17
Wiertel L.	21
Zimmerman LE.	14

Keep Up with the Cancer Literature

Each Month
You Can Receive Abstracts
Covering Your Specialty Area

- This convenient service — called Auto SDI* — is as near as your nearest biomedical library. Discuss your research interests with the librarian who will design an appropriate search strategy.
- Abstracts of the latest published literature are searched automatically each month and those related to your interests are delivered to you on a regular basis.
- The abstracts you receive are selected from more than 4,000 monthly entries made into CANCERLIT — the extensive cancer literature data base of the National Cancer Institute.

Talk With Your Librarian
About the Auto SDI Service TODAY.

---

*Auto SDI stands for Automatic Selective Dissemination of Information. It is a service provided to you, at minimal cost, by the International Cancer Research Data Bank (ICRDB) — a part of the National Cancer Institute.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1982-381-847:201

INTERNATIONAL CANCER RESEARCH
DATA BANK

Compilation of Experimental Cancer Therapy Protocol Summaries

COMPLIMENTARY COPIES
NOW AVAILABLE

April 1982
Sixth Edition

CONTENT

This document contains summaries of over 1200 open experimental clinical cancer therapy protocols from countries around the world.

Open protocols are arranged in sections according to the specific type of cancer.

Protocols closed in 1981 are listed by title, number, and investigator in a separate section.

INDEXES

Tumor index
Agent/Modality index
Protocol identification number index

Mail to:
Compilation Request
ICRDB Program
National Cancer Institute
Westwood Building Room 10A18
Bethesda, Maryland 20205

Request for 1982 COMPILATION.
(Print Clearly for use as mailing label)

Name: ____________________

Address: ____________________

____

City/State/Zip: ____________________

Country: ____________________

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

U.S.MAIL

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/11

NCI/ICRDB/CT11-82/11

PB82-938511

ICRDB CANCERGRAM

INTERNATIONAL CANCER RESEARCH DATA BANK

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/11

NOVEMBER, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfactio͏n and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY
DEC - 7 1982
U. S. GOVT. PUBS.
DEPOSITORY 376

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS 1-2
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX 3
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS 4-5
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS 6-11
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS 12
- BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS 13-14
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES 15
- PROGRESS IN RECONSTRUCTION AND REHABILITATION 16-18

ORAL CAVITY AND OROPHARYNX TUMORS

1. THE PATHOLOGY OF HEAD AND NECK TUMORS: MUCOSAL MELANOMAS, PART 13.

Batsakis JG, Regezi JA, Solomon AR, Rice DH
Dept. Pathology, M. D. Anderson Hosp. and Tumor Inst., Texas Medical Center, Houston, TX, 77030

Head Neck Surg; 4(5):404-418 1982

Incidence and etiologic and pathogenetic bases for mucosal melanomas are reviewed, and characteristics of related pigmented lesions are discussed. Respiratory tract melanomas arise almost exclusively in the upper portion from melanocytes normally present in the mucosa of the nasal cavity, paranasal sinuses, and larynx. Oral pigmentation varies according to the race of the individual, and is much more common in hosts with darker skin such as blacks, Orientals, and residents of the Mediterranean basin. The most common exogenous and iatrogenic reason for nonmelanocytic pigmentation of oral mucosa is the deposition of dental amalgam. Melanocytic macules are lesions with clinicopathologic correlation between a clinically discrete pigmented macule and histologic features of hyperpigmentation of the basal-cell layer or lamina propria or both. Nearly every form of cutaneous nevus can present as an in-

HE 20.3173/2:

traoral lesion, but significant differences exist in the types of nevi found in the oral cavity. Within the oral cavity, the palate and alveolar gingivae are the most common sites of predilection for melanomas; nearly 80% of oral melanomas arise in the mucosa of the upper jaw, with the majority occurring on keratinizing mucosa. Prognostic indicators for mucosal melanomas of the head and neck have been difficult to establish. Although melanomas of the upper aero-digestive tract are much less common than cutaneous melanomas, the fatality rate is nearly always greater. (51 Refs)

2. LIPOMA OF THE ORAL CAVITY.

Rapidis AD
Dept. Oral and Maxillofacial Surgery, St. Paul's Accident Hosp., 23, Asclipiou St., Kifissia, Athens 144, Greece

Int J Oral Surg; 11(1):30-35 1982

Literature data on the incidence, classification, clinical manifestations, and histopathology of intraoral lipomas are reviewed. Forty two patients (25 men, 17 women; 10-82 yr old) with oral lipomas are presented. All patients had solitary tumors. Lipomas were located in the cheek (15), buccal sulcus (10), floor of the mouth (6), tongue (5), retromolar area (3), and lip (1). The size of lipomas ranged from 5 to 65 mm. All patients were subjected to excision biopsy. Histologically, 24 patients had lipomas and 18 had fibrolipomas. (56 Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX

3. LOW-GRADE ADENOCARCINOMA OF THE NASAL CAVITY AND PARANASAL SINUSES.

Heffner DK, Hyams VJ, Hauck KW, Lingeman C
Dept. Otolaryngic Pathology, Armed Forces Inst. Pathology, Washington, DC, 20306

Cancer; 50(2):312-322 1982

The pathologic features and the behavior of 50 cases of adenocarcinoma (excluding adenoid cystic carcinoma and mucoepidermoid carcinoma) of the sinonasal tract are presented. The cases were divided on histologic grounds into 23 low-grade and 27 high-grade neoplasms. The low grade lesions had a well developed glandular pattern throughout, very uniform nuclei, and minimal mitotic activity. The high grade tumors had a less uniform glandular pattern, commonly with solid or sheet-like areas, manifested nuclear pleomorphism, and generally had a higher mitotic rate. The low-grade group had a prognosis markedly better than the high-grade group. Since the literature tends to consider all sinonasal adenocarcinomas as relentlessly progressive neoplasms with poor prognosis, it is important to recognize this category of low grade neoplasm in order that treatment and prognostication can be better related to their behavior. (Author abstract) (15 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

4. CARTILAGINOUS TUMORS OF THE LARYNX: A SERIES OF 33 PATIENTS.

Neel HB, Unni KK
Mayo Clinic, 200 First St. SW, Rochester, MN, 55905

Otolaryngol Head Neck Surg; 90(2):201-207 1982

Records of 33 patients (24 men, 9 women; 34-91 yr old at surgical treatment, median age 63 yr) with cartilaginous tumors of the larynx were reviewed. Symptoms included hoarseness (21 patients), dyspnea (22), neck lump (10), wheezing due to airway narrowing (9), and weak voice (7). Median duration of symptoms was 12 mo; 10 patients had symptoms for greater than 24 mo. Two patients had chondromas and 31 had chondrosarcomas (21 Grade 1 and 10 Grade 2). Of 19 patients undergoing laryngofissure and partial laryngectomy, three required reexcisions through a second laryngofissure procedure, one of whom required stenting; three other patients had laryngectomies. Tertiary procedures were necessary in three patients for recurrent tumor: one patient had a third laryngofissure and removal and two had total laryngectomies. Other primary procedures included seven total laryngectomies, three external removals, and two transoral removals; two patients underwent tracheostomy and biopsy alone. Recurrences occurred only in the patients who had partial laryngeal procedures; 21 mo to 16 yr after the surgical procedure (mean 6 yr). At the time of last follow-up 24/31 patients had no evidence of disease. Five patients with recurrent or untreated tumors died, three as a direct result of their chondrosarcomas. A slightly higher incidence of recurrence was noted in Grade 2 chondrosarcomas and in patients with primary thyroid cartilage tumors. (10 Refs)

5. TWO NEW CASES OF RARE TUMORS OF THE LARYNX. A LIPOMA AND A CHEMODECTOMA.

Basset JM, Paraire F, Francois M, Fleury P
Service O.R.L., Hopital Saint-Louis, 2, place du Docteur A. Fournier, F 75475 Paris, France

Ann Otolaryngol Chir Cervicofac; 99(4/5):151-158 1982

A lipoma with ossifying and myeloid metaplastic tendencies was resected from the larynx of a 50-yr-old woman who presented with dysphonia and dysphagia without any dyspnea or pain. Histological findings were suggestive of a hamartoma. The second patient, a 49-yr-old woman, presented with isolated dysphonia. Surgery was preceded by direct laryngoscopy, arteriography, and embolization. Histological examination following surgery revealed a chemodectoma without any signs of malignancy. (11 Refs) (In FRE)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

6. VALUE OF ECHOGRAPHY IN THE DIAGNOSIS OF SALIVARY GLAND TUMORS.

Vinas-Salas J, Ojeda-Gil J

Departement de Chirurgie, Hopital Clinique et Provincial, Barcelona, Spain

Lyon Chir; 78(3):177-181 1982

The most characteristic salivary gland echographic images are demonstrated in a review of five cases in which echography was used in the diagnosis of salivary gland diseases. Pathology which is illustrated and described includes undifferentiated parotid carcinoma, Wharthin's tumor, squamous cell carcinoma, tuberculous adenopathy and salivary gland stones. Based on a series of 20 cases in which the diagnostic accuracy of sialography was compared with echography, sialography was more accurate than echography even though in 3/20 cases, echography corrected the incomplete or erroneous diagnosis of sialography. In most cases (85%) the results of echography correlated with the diagnosis based on the pathology report. Echography is recommended as a useful method for establishing the differential diagnosis between solid and liquid masses, for differentiating between an intraglandular and extraglandular tumor, for delineating the tumor, for controlling the clinical evolution of the tumor, and for diagnosing benign or malignant tumors. (9 Refs) (In FRE)

7. LOCALIZATION OF S-100 PROTEIN AND GLIAL FIBRILLARY ACIDIC PROTEIN-RELATED ANTIGEN IN PLEOMORPHIC ADENOMA OF THE SALIVARY GLANDS.

Nakazato Y, Ishizeki J, Takahashi K, Yamaguchi H, Kamei T, Mori T

Dept. Pathology, Gunma Univ. Sch. Medicine, Showa-machi 3-39-22, Maebashi-shi, Gunma-ken 371, Japan

Lab Invest; 46(6):621-626 1982

Pleomorphic adenoma of the salivary glands was studied by the peroxidase-antiperoxidase method and Ouchterlony's double diffusion for the presence of so-called nervous system-specific proteins, S-100 protein, glial fibrillary acidic protein (GFAP), and astroprotein. Positive immunostaining for S-100 protein was observed in tumor cells of epithelial, myxomatous, and chondroid areas. An immunodiffusion test confirmed its presence in the tumor. Normal salivary glands were also stained with anti-S-100 serum, but the reaction was less intense than that of tumor. Specific immunostaining for GFSAP and astroprotein was found in a small number of cells of myxomatous and chondroid areas and occasionally in cells in epithelial areas. An immunodiffusion test suggests that the GFAP-related antigen of the pleomorphic adenoma showing a minor heterogeneity of antigenic determinants is almost identical with GFAP. Normal salivary glands did not stain with GFAP or astroprotein antisera, nor did they react with anti-GFAP serum by immunodiffusion. Thus, the S-100 protein and GFAP-related antigen may be actively synthesized in adenoma cells during the course of tumor development. In addition, the GFAP-related antigen is considered to be a tumor-associated antigen of pleomorphic adenoma of the salivary glands. (Author abstract) (28 Refs)

8. CERVICAL HETEROTOPIC SALIVARY GLAND NEOPLASMS: A DIAGNOSTIC DILEMMA.

Zajtchuk JT, Patow CA, Hyams VT

Otolaryngology - Head and Neck Surgery Service, Walter Reed Army Medical Center, Washington, DC, 20012

Otolaryngol Head Neck Surg; 90(2):178-181 1982

Salivary gland neoplasms found within cervical lymph nodes and occurring as neck masses may represent primary tumors of heterotopic salivary gland tissue. Review of ten cases of cervical disclosed three pleomorphic adenomas, three well-differentiated mucoepidermoid carcinomas, two acinic cell adenocarcinomas, one malignant oncocytoma, and one benign oncocytoma. In all but one case the neoplasm was within recognizable lymph node tissue. Five new cases of cervical heterotopic salivary gland neoplasms are presented with long-term follow-up of 14-66 mo. Three of the five patients had major salivary gland surgery: case 1 (malignant oncocytoma) had a submandibular gland resection; case 2 (acinic cell adenocarcinoma) had a superficial parotidectomy; case 5 (pleiomorphic adenoma) had a total parotidectomy. None of these surgical specimens showed salivary gland at the site of a primary tumor. The remaining two cases (both well-differentiated mucoepidermoid carcinoma), were followed up by serial physical examinations of the head and neck. Malignant oncocytoma and acinic adenocarcinoma arising in cervical heterotopic salivary are reported for the first time. (11 Refs)

9. THE COMBINATION OF COMPUTED TOMOGRAPHY WITH SIALOGRAPHY IN DIAGNOSIS OF LESIONS OF THE PAROTID GLAND.

Schindler E, Reck R

Abteilung fur Neuroradiologie, Universitatskliniken Mainz, Langenbeckstrasse 1, D-6300 Mainz, W. Germany

Radiologe; 22(6):241-246 1982

Lesions of the parotid region were studied in 32 patients by means of computed tomography (CT) with sialography. The lesions included benign and malignant tumors, tuberculosis, and chronic sialadenitis. Clinical use of the procedure in diagnosis is illustrated by seven cases. CT with sialography allowed differentiation of deep-lobe parotid tumors and parapharyngeal tumors. CT also allowed estimation of the size of tumors, aiding in determination of operability and planning of therapy. (12 Refs) (In GER)

10. THE VALUE OF SERUM THYROGLOBULIN MEASUREMENT AS A MARKER OF CANCER RECURRENCE IN THE FOLLOW-UP OF PATIENTS PREVIOUSLY TREATED FOR DIFFERENTIATED THYROID TUMOR.

Roti E, Robuschi G, Emanuele R, Bandini P, Russo A, Riva P, Galassi E, Guerra UP, Manfredi A, Bozzetti A, Guazzi AM, Gandi A

Cattedra di Endocrinologia e Patologia Costituzionale, Ospedali Riuniti, Via Gramsci 14, 43100 Parma, Italy

J Endocrinol Invest; 5(1):43-46 1982

The value of serum thyroglobulin (hTg) in detection of cancer recurrence was studied in 104 patients previously treated with surgical and 131I total thyroid ablation for differentiated thyroid cancer. In 87 of the patients with negative 131I total body scans (TBS), serum hTg was undetectable in 80%. In 57 patients with positive TBS, serum hTg was measurable in 72% of the patients, and undetectable in 20%. The results suggest that both serum hTg measurement and 131I TBS are useful in detection of thyroid cancer recurrence. (20 Refs)

11. COEXISTENCE OF HYPERTHYROIDISM AND THYROID CANCER.

Wahl RA, Goretzki P, Meybier H, Nitschke J, Linder M, Rober HD, Thomas CG
Zentrum fur Operative Medizin I, Chirurgische Klinik, Robert-Koch-Strasse 8, 3550 Marburg, W. Germany
World J Surg; 6(4):385-390 1982

Coexistence of hyperthyroidism (HT) and thyroid cancer (TC) was analyzed retrospectively using data from three surgical centers in endemic regions of West Germany. TC was demonstrated histologically in 18/702 (2.6%) patients who underwent surgery for HT. Five additional patients were found to be hyperthyroid preoperatively, making a total of 23 cases with coexistent HC and TC. These 23 patients with coexistent TC and HT represent 4.2% of 554 patients treated for TC. Higher incidence of TC was observed in patients with multinodular toxic goiters (TG; 3.3% of 317 patients) and uninodular TG (2.9% of 207). The highest incidence of HT in TC was observed in papillary (13/152 patients) and follicular TC (9/200). The sex ratio indicated a strong female preference (10.5:1). The age distribution did not differ from that of TC without HT. Fifteen of 23 patients had intrathyroidal primary lesions without macroscopic metastases. In three patients, large inoperable infiltrating and metastatic tumor masses existed. TC was located within a solitary toxic nodule in six patients, outside a solitary toxic nodule in four, and within a multinodular toxic goiter containing a variety of hot and cold areas in eight. In two patients with Graves' disease, microscopic dissemination was observed. Malignancy in those with coexistent HC and TC was diagnosed preoperatively in only 5/23 patients and only in those with advanced tumor stages. Data indicated that coexistence of HT and TC is more frequent than was observed in former studies. (25 Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

12. THERAPY OF RHABDOMYOSARCOMA OF THE ORBIT.

Jurgenssen OA, Reinartz G, Pichler E
Universitats-Kinderklinik, Wahringer Gurtel 74-76, A-1090 Wien, Austria
Paediatr Paedol; 17(2):329-339 1982

Rhabdomyosarcoma of the orbit in five children (10 mo-7 yr and 3 mo old at the time of diagnosis) is reported. All five children had locally extensive tumor growth at the time of diagnosis. Two children showed radiological signs of infiltration of the roof of the orbit. None of the children had locoregional involvement of lymph nodes. Two tumors were Stage I and three were Stage III. Two children underwent exenteration of the orbit after preoperative local radiotherapy (18 Gray in 2-3 days); one of these underwent partial resection of the orbital roof. One child underwent exenteration of the orbit after primary radio- and chemotherapy failed to arrest tumor growth. Primary chemo- and radiotherapy (60 Gray) achieved tumor reduction in two children; these two did not undergo exenteration. Radiotherapy produced acute transitory conjunctivitis in one child and chronic recurrent conjunctivitis in one. Four children were treated with a combination of vincristine, actinomycin D (AMD), and cyclophosphamide. One child, who was considered a bad risk, received adriamycin in place of AMD. Four children were free of tumor and out of therapy 3.5-8 yr after diagnosis. One child died of a respiratory distress syndrome 7 mo after starting therapy; autopsy showed hyaline membrane disease. Mutilating surgery for rhabdomyosarcoma of the orbit can be avoided by using a combination of radio- and chemotherapy without decreasing the chances for survival. If conservative therapy fails, surgery may be performed. (40 Refs) (In GER)

BONE TUMORS, SOFT TISSUE SARCOMAS, AND SKIN TUMORS

13. CANCERS OF THE SKIN OF THE NOSE.

Goepfert H, Arredondo R, McNeese MD
Dept. Head and Neck Syrgery, Univ. texas M. D. Anderson Hosp., 6723 Bertner Ave., Houston, TX, 77030
Otolaryngol Head Neck Surg; 90(2):237-240 1982

Records of 305 patients with cancer of the nasal skin treated between 1970 and 1979 were reviewed. Choice of therapy must consider tumor location, histologic findings and extension in surface and depth, multicentricity of cancer and associated cancers, previous therapy, pattern of tumor spread, and wishes of the patient. Surgical therapy should involve adequate removal of tissues, proper selection of repair, resurfacing if necessary, prosthetic replacement, and postoperative radiation therapy for extensive tumors. (6 Refs)

14. OROFACIAL SYNOVIAL SARCOMA. A CLINICOPATHOLOGIC STUDY OF 11 NEW CASES AND REVIEW OF THE LITERATURE.

Shmookler BM, Enzinger FM, Brannon RB
Dept. Dermatopathology, Armed Forces Inst. Pathology, Washington, DC, 20306
Cancer; 50(2):269-276 1982

Synovial sarcoma arises most commonly in the lower extremity, particularly in the region of the lower thigh and knee. Yet the occurrence of this mesenchymal neoplasm in the head and neck area has been convincingly documented, albeit confined almost exclusively to cervical and parapharyngeal sites. Therefore, in view of its rarity in the head and neck, we analyzed a group of 11 synovial sarcomas arising in the orofacial region. The series comprised nine men (82%) and two women (18%). In common with synovial sarcoma at more conventional sites, this is a disease of young adults: ages ranged from 16-49 yr (median, 34 yr). Topographically, two subsets were delineated, a more common facial group with eight cases (4 check, 2 parotid region, 1 infraorbital, 1 submental), all arising as gradually enlarging, usually nontender, solitary tumors; and three intraoral ones (2 tonsillar, 1 lingual), two of which were polypoid and one was an exophytic tonsillar mass which presented with hemoptysis and stridor. Follow-up data, obtained for nine patients (range, 1.3-15.0 yr), disclosed three (33%) tumor-related deaths, all belonging to the facial group. Treatment, difficult to significantly correlate with survival in this small series, varied from surgical excision alone to a multimodality approach including both irradiation and chemotherapy. Histologically, all the neoplasms revealed characteristic biphasic features, predominantly fibrosarcomatous in one, but, more typically, showing epithelial clefts and/or pseudoacinar spaces in the others. Differential diagnosis, depending on the proportion of the biphasic components, ranged from spindle cell mesenchymal neoplasms to various adenocarcinomas, including those arising in mixed tumors of salivary gland. (Author abstract) (44 Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

15. SIGNIFICANCE OF ALKALINE PHOSPHATASE AND CHEMOTHERAPY FOR HEAD AND NECK CARCINOMA.

Barres SA, Jacobs JR, Peppard SB, Al-Sarraf M
(c/o Peppard) Dept. Otolaryngology, Wayne State Univ., 540 E. Canfield, Detroit, MI, 48201
Otolaryngol Head Neck Surg; 90(2):188-192 1982

The possible prognostic role of pretreatment serum alkaline phosphatase (AP) levels was investigated in 101 patients with advanced, biopsy proven epidermoid carcinoma of various sites of the head and neck. Patients were treated by two drug regimens: cis-Platinum (CP), vincristine and bleomycin sulfate (COB) was administered to 64 while 37 received CP and 5-fluorouracil. Treatment resulted in complete remission in 31, partial remission in 51, and no response in 20. Pretreatment AP levels were compared with tumor site, degree of differentiation, and response to chemotherapy. There was no significant correlation between AP levels and site or response to treatment. Pretreatment AP level has no value as a prognostic index of successful chemotherapy. (9 Refs)

PROGRESS IN RECONSTRUCTION AND REHABILITATION

16. LATISSIMUS DORSI MYOCUTANEOUS FLAP FOR MASSIVE FACIAL DEFECTS.

Schuller DE
Dept. Otolaryngology, Ohio State Univ. Coll. Medicine, 456 Clinic Dr., Columbus, OH, 43210
Arch Otolaryngol; 108(7):414-417 1982

There are certain indications for the use of particular myocutaneous flaps based on their capability to transfer skin of satisfactory surface area. Pectoralis major and trapezius myocutaneous flaps seem to have the greatest application for reconstructing moderate- to large-size defects. However, the head and neck surgeon encounters ablative procedures where neither of these is sufficient to reconstruct a massive tissue loss. The purpose of this article is to illustrate the successful use of the latissimus dorsi myocutaneous flap as a means of transferring a large amount of skin and to discuss its advantages and disadvantages. (Author abstract) (9 Refs)

17. AURICULAR RECONSTRUCTION: SELECTED SINGLE-STAGE TECHNIQUES.

Tebbetts JB
Div. Plastic Surgery, Univ. Texas Southwestern Medical Sch., 5323 Harry Hines Blvd., Dallas, TX, 75235
J Dermatol Surg Oncol; 8(7):557-566 1982

Interim wound management of auricular defects, anatomic requirements for reconstruction, and principles of single-stage reconstructive techniques are reviewed. Selected examples of single-stage reconstructive techniques are presented. Surgical extirpation of skin cancer lesions must be appropriately aggressive and adequate. Pathologically clear margins should be obtained before definitive reconstruction is done. Simple wedges and closure, full-thickness skin grafts, local and composite flaps, and reconstruction of the earlobe are considered with respect to indications for use, pertinent anatomy, design, principles, and limitations. (7 Refs)

18. PRINCIPLES OF NASAL RECONSTRUCTION.

Barton FE
Div. Plastic Surgery, Univ. Texas Southwestern Medical Sch., 5323 Harry Hines Blvd., Dallas, TX, 75235
J Dermatol Surg Oncol; 8(7):568-574 1982

Management, and principles of nasal reconstruction after treatment for basal-cell carcinoma are discussed. Primary closure is most applicable in the upper two-thirds of the nose. The suture lines should be oriented horizontally to take advantage of the natural skin laxity and for the superior esthetic character of a transverse nasal scar. In selected instances of through-and-through defects of the nose, and especially those of alar rims, healing by secondary intention prior to reconstruction may be chosen so that turn-in flaps may be hinged on the healed wound margin for internal lining. Best reconstructive results are obtained with full-thickness replacements as early as possible to avoid excessive cicatrix in the nasal remnants. Full-thickness grafts may serve well for replacement of the upper two-thirds of the nose, but are often too thin and smooth for the nasal tip. Due to its thickness, a composite graft requires a nearly ideal recipient bed and meticulous postoperative cooling. Even under the best of circumstances, complete survival is rare when the graft is more than 1.5 cm thick. A skin flap is the only reliable way to transfer bulk tissue for reconstruction. The scalping flap technique is a procedure of choice for defects larger than one half of the nose or in patients with a low frontal line. Variants of the French method of cheek advancement flaps are often used to repair nasal defects; the operation is performed in a single stage and closure of the donor site does not obliterate the normal alar crease. Small defects of the nasal dorsum can be repaired by local flaps from the nose itself. Chemosurgery may be of use in the removal of basal cell carcinomas. (17 Refs)

AUTHOR INDEX WITH CITATION NUMBERS

Al-Sarraf M. 15
Arredondo R. 13
Bancini P. 10
Barton FE. 18
Basset JM. 5
Batsakis JG. 1
Bozzetti A. 10
Brannon RB. 14
Burres SA. 15
Emanuele R. 10
Enzinger FM. 14
Fleury P. 5
Francois M. 5
Galassi E. 10
Gnudi A. 10
Goepfert H. 13
Goretzki P. 11
Guazzi AM. 10
Guerra UP. 10
Hauck KW. 3
Heffner DK. 3
Hyams VJ. 3
Hyams VT. 8
Ishizeki J. 7
Jacobs JR. 15
Jurgenssen OA. 12
Kamei T. 7
Linder M. 11
Lingeman C. 3
Manfredi A. 10
McNeese MD. 13
Meybier H. 11
Mori T. 7
Nakazato Y. 7
Neel HB. 4
Nitschke J. 11
Ojeda-Gil J. 6
Paraire F. 5
Patow CA. 8
Peppard SB. 15
Pichler E. 12
Rapidis AD. 2
Reck R. 9
Regezi JA. 1
Reinartz G. 12
Rice DH. 1
Riva P. 10
Robuschi G. 10
Roher HD. 11
Roti E. 10
Russo A. 10
Schindler E. 9
Schuller DE. 16
Shmookler BM. 14
Solomon AR. 1
Takahashi K. 7
Tebbetts JB. 17
Thomas CG. 11
Unni KK. 4
Vinas-Salas J. 6
Wahl RA. 11
Yamaguchi H. 7
Zajtchuk JT. 8

VIDEOTAPES

ON CURRENT TOPICS IN CANCER RESEARCH

A pilot project of the International Cancer Research Data Bank (ICRDB) Program of the National Cancer Institute

Three series are available . . .

THE RELATION OF CARCINOGEN ACTION ON DNA TO CELL TRANSFORMATION

PETER MAGEE Fels Research Institute	*Keynote Address*	**#VK01** **28 min.**
JAMES K. SELKIRK Oak Ridge National Laboratories	*Metabolic Activation and Macromolecular Binding of Chemical Carcinogens*	**#VK02** **51 min.**
PHILIP C. HANAWALT Stanford University	*Cellular Responses to Damaged DNA*	**#VK03** **54 min.**
CHARLES HEIDELBERGER University of Southern California	*Mutagenesis and Oncogenic Transformation of Mouse Embryo Cells*	**#VK04** **54 min.**
FRED RAPP Milton S. Hershey Medical Center	*The Interaction of Herpesviruses and Host Cells Leading to Latency or Transformation*	**#VK05** **52 min.**
	Panel Discussion	**#VK06** **31 min.**

MECHANISMS OF METASTASIS

ISAIAH FIDLER Frederick Cancer Research Center	*The Heterogeneous Nature of Cancer Metastasis and Implications for Therapy*	**#VB01** **47 min.**
GEORGE POSTE Smith, Kline and French Laboratories	*Phenotypic Analysis of Metastatic Cell Populations*	**#VB02** **42 min.**
LANCE LIOTTA National Cancer Institute	*Tumor Cell Invasion of Basement Membranes and Extracellular Matrices*	**#VB03** **33 min.**
EVERETT SUGARBAKER Miami Cancer Institute	*Some Clinical Characteristics of Metastasis in Man*	**#VB04** **41 min.**

AUTOMATED CYTOLOGY

Part One: Principles and Techniques	**#VB05** **56 min.**
Part Two: Biological Applications	**#VB06** **52 min.**

VIDEOTAPES ON CURRENT TOPICS IN CANCER RESEARCH are in the 3/4" U-matic format and can be played on video equipment which accepts the NTSC standard (the standard for videotapes produced in the U.S.). The two Automated Cytology tapes (#VB05 and #VB06) are also available in the PAL format.

The videotapes are available on a loan basis. If you would like to schedule viewing for your group, or for more information, please write to:

Videotape Coordinator
ICRDB Program
Westwood Building, Room 10A18
Bethesda, MD 20205

Please specify three choices for viewing dates, and the tapes desired.

☆U.S. GOVERNMENT PRINTING OFFICE: 1982-381-847:204

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). CANCERGRAMS are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616

CT 11/82/12

NCI/ICRDB/CT11 82/12

PB82-938512

INTERNATIONAL CANCER RESEARCH DATA BANK

ICRDB CANCERGRAM

NEOPLASIA OF THE HEAD AND NECK

Diagnosis, Treatment

SERIES CT11 No. 82/12

DECEMBER, 1982

This Cancergram is a service of the INTERNATIONAL CANCER RESEARCH DATA BANK (ICRDB) PROGRAM of the U.S. National Cancer Institute. Every few weeks, an updated Cancergram containing abstracts of selected cancer-related articles recently published in more than 3000 journals, and dealing with the topic indicated by the above title, is sent to researchers working in this area. These researchers are identified on the basis of the description of their current research project that has been submitted to the ICRDB Program, directly or via granting agencies.

This Cancergram is prepared by the Cancer Information Dissemination and Analysis Center (CIDAC) for Diagnosis and Therapy *If this Cancergram is useful and valuable, please send your comments to the CIDAC address below, since future editions depend on user satisfaction and user needs:*

CIDAC FOR DIAGNOSIS AND THERAPY
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE
6723 BERTNER AVENUE
HOUSTON, TX 77030

Consulting reviewer:
ROBERT M. BYERS, M.D.

NEWARK PUBLIC LIBRARY

NOV 17 1982

U. S. GOVT. PUBS.
DEPOSITORY 376

In this issue:

- ORAL CAVITY AND OROPHARYNX TUMORS 1-4
- PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX 5-7
- HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS 8-10
- THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS 11-14
- OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS 15-16
- MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES 17-18
- SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS 19-20

ORAL CAVITY AND OROPHARYNX TUMORS

1. CORRELATIVE CLINICO-PATHOLOGICAL EVALUATION OF ORAL PREMALIGNANCY.

Fischman SL, Ulmansky M, Sela J, Bab I, Gazit D
Dept. Oral Medicine, Sch. Dentistry, State Univ. New York at Buffalo, Buffalo, NY, 14214
J Oral Pathol; 11(4):283-289 1982

Biopsy files accumulated between 1947 through 1980 were screened and 153 potentially premalignant lesions of the oral cavity were selected for study. As reported by the surgeon, the most common clinical diagnosis was 'leukoplakia' (49.7%) alone or with other clinical signs. Other diagnoses included hyperkeratosis and lichen planus, each alone or with other changes. The WHO premalignancy index showed that 49% of the cases were minimal and not of the type generally felt to be premalignant. Almost one-quarter (24.8%) were premalignant and/or carcinoma in situ. Frank carcinoma was diagnosed in 20.3% and other diagnoses such as lichen planus in 5.9%. When graded according to histological changes as published by Smith and Pindborg (1969), certain changes were more prominent in the premalignant lesions: irregular epithelial stratification, intraepithelial keratinization, loss of polarity of

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service • National Institutes of Health • National Cancer Institute

HE 20. 3173/2:

basal cells, hyperchromatic nuclei, increased nucleus-cytoplasm ratio, and anisocytosis and anisonucleosis. A correlation is presented of the diagnostic category and the premalignancy index. Of the lesions felt to be cancer by the clinician, about equal proportions were benign (33%), premalignant (36%), and malignant (31%). Similarly, 13% of the lesions diagnosed as 'leukoplakia' or 'hyperkeratosis' by the clinician were frank carcinomas. The data underscore the need for a diagnostic biopsy in all suspicious lesions. (17 Refs)

2. ARGUMENTS IN FAVOR OF PRECAUTIONAL TREATMENT OF CERVICAL NODES IN CLINICALLY N0 ORAL CANCER.

Volterrani F, Chiesa F, Molinari R
Dept. Radiology, Istituto Nazionale Tumori, Via G. Venezian 1, 20133 Milano, Italy
Tumori; 68(3):241-245 1982

Our retrospective and unrandomized clinical study covers 317 squamous cell carcinomas of the oral cavity initially N0 and treated with curietherapy from January 1959 to December 1970. Upon conclusion of the treatment on T, a radical dissection of the neck was performed only on 110 patients (34.7%) and the other 207 were not submitted to surgery. The incidence of N0 N+ cases was 27.3% (30/110). The clinical evolution showed that in the group not submitted to radical dissection 53 of 179 cases (29.6%) with adequate follow-up had lymph nodal relapses; 15/69 of these were initially T1 (21.7%) and 38/110 initially T2,3 (34.5%). The data concerning clinical evolution and analysis of the survival curves for the two groups supply arguments in favor of the systematic treatment of the lymphatic areas of the neck in initially N0 oral carcinomas. (Author abstract) (8 Refs)

3. EFFECT OF T AND N STAGES ON CLEARANCE AND SURVIVAL IN SQUAMOUS CANCERS OF THE ORAL CAVITY AND OROPHARYNX: ANALYSIS OF RTOG HEAD AND NECK REGISTRY (MEETING ABSTRACT).

Scariato A, Pajak T, Brady L, Davis L, Fazekas J
Hospital of the University of Pennsylvania, Philadelphia, PA
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

The Radiation Therapy Oncology Group (RTOG) Registry of Head and Neck Cancers treated with curative intent has accrued detailed data on staging, treatment and outcome of 2,000 patients. Patients who had surgical intervention (excluding biopsies) were withdrawn from this review. Two hundred ten primary squamous cancers of the oral cavity and 218 tumors within the oropharynx constitute the basis of this analysis. The overall primary tumor clearance observed was 82% among all oropharynx patients, significantly higher than 70% noted in oral cavity lesions. This clearance trend is upheld in individual T-stage comparisons as well, with the largest observed difference (77% vs 46%) within the T-3 category. A similar analysis of regional node clearance by initial N-stage revealed a diminished clearance rate as nodal stage increased. Among nodal deposits metastatic from oral cavity and oropharynx, the major decline in clearance was observed in progressing from N-1 to N-2. Surprisingly, initial nodal stage bore no relationship with the subsequent development of distant metastases as the first site of failure in complete responders even when N-positive patients are compared to N-negative cases. The approximately 10% overall observed rate was similar between oral cavity and oropharynx primaries at two years. There was no difference in the 2-year overall survival between patient with primaries in the oropharynx (46%) and patients with oral cavity tumors (54%). This serves as an outcome baseline for single modality treatment of this patient population. (no Refs)

4. THE MANAGEMENT OF ADVANCED SUPRAGLOTTIC CARCINOMA BY DELAYED COMBINED THERAPY (MEETING ABSTRACT).

Harwood AR
The Princess Margaret Hospital, Toronto, Canada
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

The management of advanced supraglottic carcinoma remains controversial between the advocates of primary surgery with or without adjuvant irradiation, and irradiation with surgery reserved for failure (RRSS). The purpose of this report is to present the results of RRSS in 259 patients with advanced supraglottic cancer. Six major complications of irradiation have been seen (2 laryngeal necroses, 2 mandibular necroses, 2 others). Local control by irradiation is similar to equivalently staged glottic cancer patients. Analysis of dose-time-volume parameters on local and regional control failed to show any benefit to improving local or regional control with increasing irradiation dose or field size. Comparison of tumor control and survival between RRSS and routine combined therapy both in this center and in the literature failed to show any survival benefit to routine combined therapy or primary surgery over RRSS in this stage of supraglottic cancer. It is concluded that delayed combined therapy (RRSS) because of its potential for saving the larynx and natural voice in a significant proportion of patients is the optimal treatment for advanced supraglottic cancer. (no Refs)

PARANASAL SINUS, NASAL CAVITY, AND NASOPHARYNX

5. IMMUNOLOGY AND DIAGNOSIS OF NASOPHARYNGEAL CARCINOMA.

Ho JH, Lau WH, Kwan HC, Chan CL, Au GH, Saw D
Medical and Health Dept., Inst. Radiology, Queen Elizabeth Hosp., Wyley Road, Kowloon, Hong Kong
Excerpta Med Int Congr Ser; 571:389-397 1982

Results of a series of studies are discussed to assess the value of testing for some Epstein-Barr virus (EBV)-specific serologic and immunologic markers in the diagnosis of nasopharyngeal cancer (NPC). All the sera tested were from Chinese patients and residents in Hong Kong. The sera were titrated for IgA and IgG antibodies to viral capsid antigen (VCA) and early antigen (EA) of EBV by the indirect immunofluorescent technique. The first study showed that NPC patients have a broader spectrum and higher geometric mean titer (GMT) of serum antibodies to EBV-specific antigens than do patients with other tumors of the respiratory and upper aerodigestive tracts and healthy subjects. A second study established that there was a stepwise rise in the GMT for all four antibodies with advancing stages of disease (I-IV). A further study was done to assess the value of titration of the four antibodies in the diagnosis of NPC. IgA to VCA had the highest sensitivity with a detection rate of 95% and relatively high specificity. IgA to EA was highly specific with no false positives but a detection rate of only 78%. IgG to VCA was the least discriminatory, while

EgG to EA fell between IgA to EA and IgG to VCA. An ongoing study involves the evaluation of the titration of serum IgA to VCA as a screening test for NPC in its early presymptomatic stage in subjects known to have a high risk of the disease, namely, close blood-linked relatives of Chinese NPC patients. In these patients, if the serology is suggestive, multiple nasopharyngeal biopsies are indicated. Data are presented on serum EBV-specific antibody titers in four siblings initially and at time of diagnosis of NPC. (17 Refs)

6. PATTERN OF FAILURE IN PATIENTS WITH ADVANCED CARCINOMA OF THE NASOPHARYNX (MEETING ABSTRACT).

Petrovich Z, Cox JD, Mackintosh R, Roswit B, Del Regato J
Veterans Administration Radiation Oncology Group, University of Southern, California School of Medicine Los Angeles, CA
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

From 1956 to 1978, 256 patients with a diagnosis of squamous cell carcinoma of the nasopharynx were treated in eight medical centers. Most of the patients (82%) presented with Stage IV disease, which included 76% with N3 neck and/or 42% with T4 primary lesions. The overall 5-year survival was 15%. As expected, survival correlated well with the stage of disease, status of the neck, presence of T4 disease, the initial performance status on the Karnofsky scale. Grade of tumor and the age of patient were not significant parameters influencing survival. Initial failure occurred in first 24 months in 83% of patients. Several patients failed more than 4 years after therapy. The most frequent cause of failure was the lack of tumor control at the primary site as found in 75% of patients. Of the 256 patients treated, 93 (36%) had systemic tumor dissemination. There was a good correlation between N stage and M1 status. Such a correlation did not exist between T stage and M1 disease. Lung was the most frequent site of metastatic disease found in 49 patients. Of these, 30 had lung as the only site of tumor dissemination. Failure in the base of the skull occurred in 20 patients, which included: 2 T1, 8 T2 and 10 T3 patients. (no Refs)

7. SIGNIFICANCE OF DESQUAMATED CELLS OF NASOPHARYNGEAL MUCOSA BASED ON 1081 CASES OF NASOPHARYNGEAL CARCINOMA.

Chen HS
JIAO-SHAN-FANG, No. 19, 1st floor, People's Road, FU-SHAN, Kwang-Tung, People's Republic of China
Acta Otolaryngol (Stockh); 94(1/2):181-183 1982

The results of a general investigation based on the cytological examination of swabs taken from nasopharyngeal mucosa of 1,081 people were as follows. Occupation: mainly workers; 687 males, 394 females; ratio 1.7:1. Smear examinations revealed 450 normal cells (41.62%), 586 inflammatory cells (54.21%), 35 precarcinomatous cells (3.22%), and 7 carcinomatous cells including pseudo-positives (0.65%). Our conclusion is that the inflammatory hyperplastic cytopoiesis may be a precarcinomatogenotropic factor. No suspicious smear should be overlooked in the course of a general investigation, in order to work out a correct alteration. The precarcinomatous cytopoietic alteration and an early diagnosis of nasopharyngeal carcinoma may be confirmed by a trace resulting from the examination of desquamatory cells. An amply prepared prophylaxis and early treatment may be achieved by confirmation of the early diagnosis of the precarcinomatous stage and the early carcinomatous stage by subsequently broadening the general investigation in view of the fact that the morbidity from carcinoma in that district was 0.65% according to our general investigation in the test area. (Author abstract) (6 Refs)

HYPOPHARYNX, LARYNX, AND CERVICAL ESOPHAGUS TUMORS

8. MONOCLONAL ANTIBODIES AGAINST SURFACE ANTIGENS OF LARYNGEAL CARCINOMA CELLS. A NEW EXPERIMENTAL APPROACH FOR THE EARLY DIAGNOSIS AND IMMUNOTHERAPY.

Zenner HP, Herrmann IF, Schimpl A
Dept. Otolaryngology, Univ. Wurzburg, Wurzburg, W. Germany
Excerpta Med Int Congr Ser; 582:141-146 1982

Use of monoclonal antibodies against surface antigens of laryngeal carcinoma cells as an approach for early diagnosis and immunotherapy is reported. The outer cell membranes of tumor cells can be broken down in their protein components by polyacrylamide gel electrophoresis. A radioimmunoassay was used to demonstrate that 47/50 laryngeal cancer patients formed antibodies to their own tumors. Of 52 patients examined, 20% possessed IgG-antibodies which cross reacted with the isolated carcinogenic cells from a single patient. A model of surface antigens in laryngeal carcinomas was proposed. Most surface antigens can be detected in both normal and malignant cells, however, tumor cells lack certain surface characteristics; other antigens are found only in tumor cells. Xenogeneic antibodies were used to prepare monoclonal antibodies for clinical studies. Clones were produced from myeloma cells crossed with antibody producing splenic cells. Seventy-three clones capable of forming anti-laryngeal antibodies were identified. The monoclonal antibody identifies various malignant target cells, including two laryngeal carcinomas and two salivary gland carcinomas. Immunofluorescence studies demonstrated that the monoclonal antibodies used can differentiate tumor tissue from non-tumor tissue. Using monoclonal antibodies as reported groups, a single cell which is not identifiable as malignant or not could be shown to possess antigens corresponding to the serum. (5 Refs)

9. SURGERY, LASER, CRYOSURGERY AND RADIOTHERAPY IN THE MANAGEMENT OF PREMALIGNANT LESIONS AND CARCINOMA IN SITU OF THE LARYNX.

Strong MS
Dept. Otolaryngology, Univ. Hosp., 75 East Newton St., Boston, MA, 02118
Excerpta Med Int Congr Ser; 582:127-132 1982

Pathology and pathogenesis of premalignant lesions and carcinoma in situ of the larynx are described and the role of various methods of treatment of these lesions is reviewed. Dysplasia and carcinoma in situ of the larynx appears to be part of a diathesis found in high-risk patients, in whom multicentric lesions are common. Patients with early noninvasive lesions of the larynx should not be overtreated. Treatment alternatives include radiotherapy (associated with many problems), excisional biopsy, supravital stains and the CO2 laser, and cryosurgical destruction. Use of supravital staining and the CO2 laser on all patients presenting with dysplasia and carcinoma in situ of the larynx during a 9-yr period is reported. The vocal cord mucosa was inspected and palpated with a probe, the subglottis was inspected by mirror examination, and the vocal cords were stained with toluidine blue. All areas of keratosis and areas of supravital staining were outlined with the laser and then excised in one fragment through the plane of Reinke's space immediately superficial to the muscularis. Recurrence was treated in the same manner. All patients tolerated the procedure well. Recurrences were closely associated with resumption of use of tobacco. Recurrence of hyperkeratosis in the postoperative state required re-excision. Involved margins necessitated radical radiotherapy. (8 Refs)

10. SURVIVAL RATES IN ADVANCED LARYNGEAL CARCINOMAS AFTER POSTOPERATIVE IRRADIATION. THE SANDWICH TECHNIQUE.

Ganzer U, Meyer-Breiting E, Vosteen KH

Dept. Ear, Nose, and Throat, Univ. Dusseldorf, Moorenstrasse 5, 4000 Dusseldorf, W. Germany

Excerpta Med Int Congr Ser; 582:55-59 1982

Survival of 379 patients with laryngeal or pharyngeal cancer with the sandwich technique [ST: preirradiation with 30 Gray (Gy), laryngectomy, then postirradiation with 30 Gy] or laryngectomy followed by irradiation (60 Gy) was compared. Sixty-one patients were treated with the ST. Patients were followed for a minimum of 5 yr. Five- and 10-yr survival rates, respectively, were as follows: for supraglottic carcinoma tumor (T)3-4, NO-3, 68% and 60% with the ST and 63% and 53% with postoperative irradiation; for glottic carcinoma T3-4 No-3, 58% and 56% with the ST and 57% and 51% with postoperative irradiation; and for internal laryngeal carcinomas T3-4 NO-3, including the subglottic space, 61% and 55% with the ST and 61% and 54% with postoperative irradiation. Combined irradiation and surgery gave better results than either modality alone in advanced laryngeal carcinoma. In supraglottic carcinoma, the ST gave better results than postoperative irradiation, although the difference was small. The prognosis is worse in patients with preoperatively palpable cervical lymph nodes. (no Refs)

THYROID, PARATHYROID, PAROTID AND SALIVARY GLAND TUMORS

11. MALIGNANT SALIVARY GLAND TUMOURS IN CHILDREN.

Dahlqvist A, Ostberg Y

Dept. Otorhinolaryngology, Univ. Umea, S-901 85 Umea, Sweden

Acta Otolaryngol (Stockh); 94(1/2):175-179 1982

Nine malignant salivary gland tumors in children, reported to the Swedish Cancer Registry between 1958 to 1980, are reviewed. All tumors appeared in the parotid gland. Five cases were muco-epidermoid carcinoma of low-grade malignancy. All patients but one were treated with surgery. The postoperative follow-up period is 1 to 21 yr. Three children have died, two of tumor disease, 1 and 18 yr respectively after diagnosis. In the other children there are no signs of recurrence. Salivary gland tumors in children must be treated according to the same principles generally accepted for adult salivary gland neoplasias. (Author abstract) (33 Refs)

12. ADENOID CYSTIC CARCINOMA: A THIRD TYPE OF HUMAN SALIVARY GLAND NEOPLASM CHARACTERIZED CYTOGENETICALLY BY RECIPROCAL TRANSLOCATIONS.

Stenman G, Dahlenfors R, Mark J, Sandberg N

Dept. Oral Pathology, Faculty Odontology, Univ. Goteborg, Box 33070, S-400 33 Goteborg, Sweden

Anticancer Res; 2(1/2):11-15 1982

A cytogenetic study, using the G-banding technique, is presented in four consecutive preparations derived from a surgically excised human adenoid cystic carcinoma (ACC) of the submandibular gland. Characteristics and frequency of the karyotypes of 133 cells in the four preparations are presented in tabular form. Results indicated that the carcinoma originated with a normal diploid stemline, and that reciprocal translocations play a predominant role in the development of an abnormal stemline. The propensity of developing variant cells, as well as an abnormal stemline, characterized by various types of reciprocal translocations, was found to be a property shared by two other salivary gland neoplasms studied by the same technique, the pleomorphic adenoma and the acinic cell tumor. The results suggest that each type of salivary gland has its own pattern of specific translocations and that the propensity of these tumor types to develop reciprocal translocations is a property related to the tissue of origin for the neoplasms. (8 Refs)

13. BODY WEIGHT IN RELATION TO PAROTID IRRADIATION (MEETING ABSTRACT).

Rao DV, Marks JE

Mallinckrodt Institute of Radiology, Washington University Medical Center, St. Louis, MO

Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

Body weight changes of 114 patients with three different varieties of head and neck cancer were studied over time after completion of irradiation. The first group of 49 patients with nasopharyngeal and tonsillar cancer had both parotids irradiated to a high dose of over 6500 rad. The second group of 17 patients with parotid and skin cancers had one parotid irradiated to a high dose of 5000 or over and one parotid relatively spared. The third group consisted of 48 patients treated full course with irradiation for vocal cord cancer whose parotids were not irradiated. All patients remained cancer-free for 2 to 4 years after irradiation, had an intact alimentay tract and no condition, other than parotid irradiation, that would interfere with their nutrition. In the patients who had both parotids irradiated, body weight fell to a nadir of-14% of initial weight, gradually rose, but never fully recovered. In the patients who had one parotid irradiated, weight fell to a nadir of-4% of initial weight, fully recovered and paralleled the weights of the control group of patients whose parotids were not irradiated. (no Refs)

14. POSTOPERATIVE IRRADIATION IN MALIGNANT TUMORS OF THE PAROTID (MEETING ABSTRACT).

McNaney D, Guillamondegui OM, McNeese M, Fletcher GH, Oswald MJ
University of Texas at Houston, M. D. Anderson Hospital and Tumor, Institute Houston, TX, 77030
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

From 1954 through 1979, 78 patients with malignant tumors of the parotid gland were referred for postoperative irradiation. The analysis has been made by grouping the patients according to the estimated amount of disease left after the surgical procedure and by the histological types. The tumor doses have been calculated at a depth estimated to be free of infestation and, on the main, have been close to 6000 rad in patients with gross or potential residual disease. There were no failures in the low-grade tumors, and there were 7 failures in 68 patients with high-grade tumors. Although there were only 7 failures in the various subgroups there is perhaps a trend to more failures in the adenocarcinomas. There was no difference in the failure rates in patients having had a total resection of the facial nerve or no resection at all. Of the 7 failures, 3 were in a low dose area, and one was at the margin of the portal. The preferred treatment has been a combination of high energy (18-25 MeV) photons and 18 MeV electrons. Severe complications appeared in 5 of 33 patients having had high doses (6000 rads or more) over large portals, otherwise, the late sequelae have been minor. (no Refs)

OPHTHALMOLOGICAL, OTOLOGICAL, AND CNS TUMORS

15. INDIVIDUALIZED IRIDIUM-192 WIRE MOULDS FOR TREATMENT OF LARGE ACCESSIBLE MALIGNANT MELANOMAS OF THE CHOROID (MEETING ABSTRACT).

Japp B, Payne D, Gallie BL, Leung PM
Ontario Cancer Institute, Toronto, Canada
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

For patients having large (6-12 mm elevation) malignant melanomas of the choroid close to or anterior to the equator of the eye, enucleation traditionally has been the treatment of choice. Recently, radiation has been used as the primary treatment modality to obtain tumor control and retain useful vision; enucleation being reserved for recurrent or persistent tumors. The location and treatment volume was determined principally by ultrasound and indirect ophthalmoscopic visualization. Computed tomographic information was also useful. These methods resulted in accurate pre-operative delineation of the tumor as subsequently assessed at operation with transillumination and indirect ophthalmoscopy. Therefore, we were able to pre-calculate and construct individualized radioactive molds for each patient. Iridium-192 wire was chosen as the radiation source for its good mechanical properties and its availability in a wide range of linear activities. Several coaxial rings of various activities were sandwiched between thin plastic sheets that had been molded to the shape of the eye. Diameters and linear activities were chosen to give the most uniform dose distribution along the axis of the treatment volume while keeping the gradient between the contact dose and the axis dose as low as possible. The applicator was sutured in place over the base of the tumor and left in position for 4-7 days. A dose of 70-80Gy was delivered to the apex of the tumor. The calculations were performed using the AECL TP-11 system. On short follow-up (6 months) of 6 patients treated by this method dramatic shrinkage of the tumor mass has been observed. (no Refs)

16. TUMOURS OF THE EYELIDS AND THEIR TREATMENT BY RADIOTHERAPY (MEETING ABSTRACT).

Fitzpatrick PJ, Thompson GA, Easterbrook M, Gallie B, Payne DG
Princess Margaret Hospital, Toronto, Canada
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

Between 1958 and 1978 a total of 1508 tumors of the eyelids were treated by irradiation. For many reasons, the histology was not reviewed in 342 (22.6%) cases and these were omitted from analysis. The remaining tumors comprised 1062 basal cell and 104 squamous cell carcinomas. These tumors were controlled in 1009 (95%) and 97 (93%) cases. Irradiation was equally successful in primary cases and in those recurrent following surgery. Recurrence following irradiation was managed by surgery or further irradiation. The cosmetic and functional results were generally excellent and readily accepted by most patients. The overall complication rate was 13% with fewer than one-half rated as serious; these problems mainly occurred with large tumors and extensive tissue destruction. In only 14 (1.2%) patients was death related to the tumor. Most patients were treated with superficial or orthovoltage x-rays. Treatments were individualized and in nearly every case it was possible to protect the underlying eye from radiation. Approximately one-half of the patients received a dose of 3500 rads in five daily fractions, one-quarter 2000-2250 rads in a single exposure and the others with bigger tumors 4250-6000 rads in 10-30 exposures in two to six weeks. Radiotherapy is a safe and cost-effective treatment for eyelid tumors. (no Refs)

MONO-MODAL, ADJUNCTIVE, MULTI-MODAL OR COMBINED THERAPIES

17. SOFT TISSUE SARCOMAS OF THE HEAD AND NECK IN CHILDREN (MEETING ABSTRACT).

Littman P, Raney B, Zimmerman R, Handler S, Bilaniuk L
Departments of Radiation Therapy, Hospital of the University of Pennsylvania, Philadelphia, PA
Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

Thirty children age 3 months to 17 years (median 6 years) with soft tissue sarcoma of the head and neck were treated from 1971 through 1981. There were twenty-three patients with rhabdomyosarcoma, four with undifferentiated sarcoma, two with malignant fibrous histiocytoma and one with fibrosarcoma. All received chemotherapy and radiation therapy (RT). doses of radiation ranged from 3000 to 6000 rad with a medium of 5000 rad. Two patients were treated with interstitial therapy, receiving doses of 4000 and 7300 rads. Patients were divided into group A (20 patients), without, or group B (10 patients), with involvement of base of skull or intracranial tumor. The only failure in group A recurred locally and subsequently died. That patient received 3000 rad to the primary site of disease which could be considered an inadequate dose. In group B, six patients died of disease and one is alive two months after a regional recurrence. Of the group B patients, eight received 3000 rad to the cranium as part of their total RT treatment. Five received the cranial RT at the initiation of chemotherapy and three of them are free of disease; the remaining three patients received the cranial RT after six weeks of drugs and all are dead. Follow-up for the 22 living patients ranges from 16 to 120 months with a median of 50 months. Cataracts and some minor bony changes have been noted. The data suggest that soft tissue sarcomas of the head and neck in children are usually cured in group A patients with chemotherapy and moderate doses of radiation. Computed tomography scans are essential for staging of the disease since involvement of the base of the skull with or without the presence of intracranial extension (group B patients) is associated with a poor prognosis. For group B patients immediate cranial irradiation may be beneficial and some patients may need higher doses of radiation to the primary site of disease. (no Refs)

18. ELECTIVE POSTOPERATIVE RADIOTHERAPY FOR HEAD AND NECK CANCERS (MEETING ABSTRACT).

Mantravadi R, Haas RE, Liebner EJ, Skolnik EM, Applebaum EL

Department of Radiology and Otolaryngology, University of Illinois Hospital, Chicago, IL

Twenty-fourth Annual Meeting of the American Society of Therapeutic Radiologists, October 25-29, 1982, Orlando, Florida American Society of Therapeutic Radiologists; 1982

Eighty-five patients with an advanced but resectable squamous carcinoma of head and neck region were treated between 1975 and 1981 with surgery and postoperative radiotherapy. The primary tumor was located in larynx in 35 patients, hypopharynx in 14 patients, oral cavity in 15 patients, and oropharynx in 21 patients. There were 4 patients with T1, 30 with T2, 32 with T3, 19 with T4 tumors. Clinically, the cervical lymph node status was N0 in 34, N1 in 36, N2 in 3 and N3 in 12. Radiotherapy was started within 3 to 6 weeks following surgery in all but four patients. A tumor dose of 55 to 65Gy was given over 6 to 7 weeks using a shrinking-field technique, depending on the adequacy of the surgical resection margins and the extent of lymph node metastases. Findings in the surgical specimen resulted in upstaging of neck disease in 6 of 28 patients (21%) with clinical N0 stage, and 19 of 36 patients (53%) with N1. No such alteration was found in primary tumor stage. However, in only 36 patients (42%) the surgical margins were adequate while in the remainder residual tumor was found at one or more of the resection margins. Local control was achieved in 69 of 85 patients (81%), regardless of the primary tumor site. Four patients developed recurrent tumor in the posterior cervical nodes with tumor control in the irradiated volume. Actuarial method was used in computing the survival rates. The disease-free survival at 3 and 5 years was 64% and 59% respectively. The overall survival for patients with hypopharyngeal tumors was significantly less than that with laryngeal and oropharyngeal tumors. (no Refs)

SELECTED ASPECTS OF ETIOLOGY, EPIDEMIOLOGY, CARCINOGENESIS AND COMPARATIVE REVIEWS

19. CLONING OF HUMAN HEAD AND NECK SQUAMOUS CARCINOMA STEM CELLS (MEETING ABSTRACT).

Schiff LJ, Urena MS, Nelson L, Shugar MA, Ryan JM
Life Sciences Division, IIT Research Institute, Chicago, IL, 60616
In Vitro; 18(3,part2):284 1982

The in vitro human stem cell assay of Hamburger and Salmon was used in an attempt to culture head and neck tumors from patients with squamous cell carcinomas. Initially, specimens from 9 head and neck tumors were disaggregated by mechanical methods and assayed in soft agar. Five of 9 tumors grew in the soft-agar system yielding a cloning success rate of 56%. Plating of 5x10(5) cells resulted in 12 to 405 colonies per plate after 21 days in culture, with a cloning efficiency between 0.00003 and 0.0005%. Recently, we have replaced the agar with an agarose culture matrix. Of 10 specimens with positive pathology, 8 have shown colony growth and 9 have produced clusters. Cloning efficiency in agarose improved approximately 2-fold. Morphological assessment of tumor colonies in culture showed the same characteristics as those of the original tumor. Overall success rate of growing head and neck tumors in agar and agarose has been 14 of 19 (74%). (1 Ref)

20. MONONUCLEAR PHAGOCYTE FUNCTION IN HEAD AND NECK CANCER: NBT-DYE REDUCTION, MATURATION AND MIGRATION OF PERIPHERAL BLOOD MONOCYTES.

Balm FJ, Drexhage HA, Von Blomberg ME, Snow GB
Dept. Otolaryngology, Free Univ. Hosp., De Boelelaan 1117, 1007 MB Amsterdam, Holland
Laryngoscope; 92(7,part1):810-814 1982

The number of blood monocytes, their ability to mature into macrophages, their NBT-dye reduction capacity and their migration towards casein were studied in 29 patients with squamous cell carcinoma of the larynx, 12 patients with squamous cell carcinoma at other sites within the head and neck and two groups of male controls, one of 29.7 yr +-7.2 (SD) and the other of 71.4 yr +-6.8 (SD). An age dependency of monocyte function in healthy individuals was established. Increased numbers of monocytes per ml blood were found in the older men. These cells showed an enhanced migration toward casein. Their maturation capacity was decreased. A clear impairment of migration toward casein was found in the two groups of carcinoma patients. The number of monocytes was only marginally affected. The maturation was found to be enhanced. An impaired recruitment of mononuclear phagocytes at the site of malignant growth due to diminished migratory capacities might be important for failing immune surveillance. (Author abstract) (28 Refs)

AUTHOR INDEX WITH CITATION NUMBERS

Applebaum EL 18
Au GH 5
Bab I 1
Balm FJ 20
Bilaniuk L 17
Brady L 3
Chan CL 5
Chen HS 7
Chiesa F 2
Cox JD 6
Dahlenfors R 12
Dahlqvist A 11
Davis L 3
Del Regato J 6
Drexhage HA 20
Easterbrook M 16
Fazekas J 3
Fischman SL 1
Fitzpatrick PJ 16
Fletcher GH 14
Gallie B 16
Gallie BL 15
Ganzer U 10
Gazit D 1
Guillamondegui 14
Haas RE 18
Handler S 17
Harwood AR 4
Herrmann IF 8
Ho JH 5
Japp B 15
Kwan HC 5
Lau WH 5
Leung PM 15
Liebner EJ 18
Littman P 17
Mackintosh R 6
Mantravadi R 18
Mark J 12
Marks JE 13
McNaney D 14
McNeese M 14
Meyer-Breiting 10
Molinari R 2
Nelson L 19
Ostberg Y 11
Oswald MJ 14
Pajak T 3
Payne D 15
Payne DG 16
Petrovich Z 6
Raney B 17
Rao DV 13
Roswit B 6
Ryan JM 19
Sandberg N 12
Saw D 5
Scariato A 3
Schiff LJ 19
Schimpl A 8
Sela J 1
Shugar MA 19
Skolnik EM 18
Snow GB 20
Stenman G 12
Strong MS 9
Thompson GA 16
Ulmansky M 1
Urcan MS 19
Volterrani F 2
Von Blomberg ME 20
Vosteen KH 10
Zenner HP 8
Zimmerman R 17

☆U.S. GOVERNMENT PRINTING OFFICE: 1982-381-847:206

CANCERGRAMS are distributed for the International Cancer Research Data Bank (ICRDB) by the National Technical Information Service (NTIS). **CANCERGRAMS** are available from NTIS on a standing order basis at $2 each for North American Continent addressees and $3 each for other addressees. An NTIS deposit account is required. For a list of subject categories or other information, please write to:

Subscription Section
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
5285 Port Royal Road
Springfield, Va. 22161

OFFICIAL BUSINESS

Penalty for Private Use, $300

PRINTED MATTER

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-211

THIRD CLASS
BULK RATE

CT-11

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication.

☐ Check here if your address has changed and you wish to continue receiving this publication. (Be sure to furnish your complete address including zip code.)

Tear off cover with address label still affixed and send to:

Computer Support Center
ICRDB Program
IIT Research Institute
10 West 35th Street
Chicago IL. 60616